

FILE 'INPADOC, WPIX, JAPIO, PIRA, RAPRA, HCAPLUS' ENTERED AT 19:35:00 ON 21 MAR 2002
L5 13 S (JP95-96737/PRN OR JP95-96737/AP)

FILE 'DPCI' ENTERED AT 19:38:31 ON 21 MAR 2002
L6 1 S (JP95-96737/PRN OR JP95-96737/AP)

FILE 'HCAPLUS' ENTERED AT 19:41:46 ON 21 MAR 2002
L8 5 S (EP 230112 OR EP 388979 OR EP 609860 OR JP 57157765 OR JP 60115622 OR US 3720639 OR
US 4816545)/PN
SEL RN L8
L9 0 S EP 738603/PRN
L10 1 S JP 1995-96737/PRN
L11 0 S EP1994-250736/PRN,AP OR JP1982-95785/PRN,AP
SEL L10 RN
L12 6 S (106-89-8/BI OR 108050-41-5/BI OR 108050-42-6/BI OR 109033-14-9/BI OR 111843-25-5/BI OR
113962-81-5/BI OR 122715-22-4/BI OR 122715-23-5/BI OR 1319-77-3/BI OR 134426-38-3/BI OR 134426-39-4/BI OR
25068-38-6/BI OR 26146-93-0/BI OR 26471-62-5/BI OR 29934-09-6/BI OR 29934-10-9/BI OR 2994-63-0/BI
OR 31257-80-4/BI OR 42263-55-8/BI OR 42263-56-9/BI OR 42263-57-0/BI OR 42263-58-1/BI OR 51311-17-2/BI OR
69709-05-3/BI OR 77974-91-5/BI OR 80-05-7/BI OR 85-42-7/BI OR 9002-84-0/BI OR 1992-15-0/BI OR 2093-04-1/BI
OR 307-30-2/BI OR 376-90-9/BI) AND (L8 OR L10)

FILE 'HCAPLUS' ENTERED AT 19:52:55 ON 21 MAR 2002
S 307-30-2/REG#

FILE 'REGISTRY' ENTERED AT 19:52:56 ON 21 MAR 2002
L13 1 S 307-30-2/RN

FILE 'HCAPLUS' ENTERED AT 19:52:56 ON 21 MAR 2002
L14 169 S L13
S 376-90-9/REG#

FILE 'REGISTRY' ENTERED AT 19:52:57 ON 21 MAR 2002
L15 1 S 376-90-9/RN

FILE 'HCAPLUS' ENTERED AT 19:52:57 ON 21 MAR 2002
L16 72 S L15
S 1992-15-0/REG#

FILE 'REGISTRY' ENTERED AT 19:52:58 ON 21 MAR 2002
L17 1 S 1992-15-0/RN

FILE 'HCAPLUS' ENTERED AT 19:52:58 ON 21 MAR 2002
L18 22 S L17
S 2093-04-1/REG#

FILE 'REGISTRY' ENTERED AT 19:52:59 ON 21 MAR 2002
L19 1 S 2093-04-1/RN

FILE 'HCAPLUS' ENTERED AT 19:52:59 ON 21 MAR 2002
L20 9 S L19
L21 5 S L14 AND L16
L22 2 S L14 AND L18
L23 1 S L14 AND L20
L24 1 S L16 AND L18
L25 1 S L16 AND L20
L26 2 S L18 AND L20
L27 7 S (L21 OR L22 OR L23 OR L24 OR L25 OR L26)
L28 6 S L27 NOT L12
SEL RN

FILE 'HCAPLUS' ENTERED AT 19:52:59 ON 21 MAR 2002

L29 241921 S (307-30-2/BI OR 375-01-9/BI OR 376-90-9/BI
OR 75-89-8/BI OR 920-66-1/BI OR 422-05-9/BI OR 425-61-6/BI OR
76-37-9/BI OR 128557-25-5/BI OR 1515-14-6/BI OR 1992-15-0/BI
OR 28788-68-3/BI OR 307-70-0/BI OR 335-99-9/BI OR 355-74-8/BI
OR 355-80-6/BI OR 376-18-1/BI OR 101-84-8/BI OR)

L30 6 S L28 AND L29

FILE 'REGISTRY' ENTERED AT 19:58:54 ON 21 MAR 2002

L31 263 S (106-89-8/BI OR 108050-41-5/BI OR 108050-42
-6/BI OR 109033-14-9/BI OR 111843-25-5/BI OR 113962-81-5/BI OR
122715-22-4/BI OR 122715-23-5/BI OR 1319-77-3/BI OR 134426-38-3
/BI OR 134426-39-4/BI OR 25068-38-6/BI OR 26146-93-0/BI OR)

L32 227 S L31 AND F/ELS

L33 8519 S FLUOROPOLYMER/PCT

L34 36 S F/ELS AND C/ELS AND MONOMER

L35 161360 S "EPOXY RESIN"/PCT OR EPOXY

L36 38429 S "EPOXY RESIN"/PCT

L37 5270 S EPOXY AND (MONOMER OR POLY OR POLYMER OR HOMOPOLYMER OR COPOLYMER)

L38 42005 S (L36 OR L37)

L39 304 S OXYCYCLOHEXANE?

L40 59790 S (PHENYL OR BENZENE OR CYCLO) AND EPOXY

L41 64 S L40 AND RESIN

L42 470 S EPOXY AND RESIN

L43 100320 S (L38 OR L39 OR L40 OR L41 OR L42)

FILE 'HCAPLUS' ENTERED AT 20:09:06 ON 21 MAR 2002

L44 298940 S L43 OR EPOXY RESIN

L45 18372 S L44 AND ((L32 OR L33 OR L34) OR "F" OR FL OR FLUORO OR PERFLUORO? OR
FLUOROCARBON OR FLUORIN##### OR POLYFLUORO?)

L46 5902 S (FUNCTIONAL OR REACT#####)(L)(L32 OR L33 OR L34)

L47 47158 S (FUNCTIONAL OR REACT#####)(8A)("F" OR FL OR FLUORO OR PERFLUORO? OR
FLUOROCARBON OR FLUORIN##### OR POLYFLUORO?)

L48 51412 S (L46 OR L47)

L49 1542 S L44 AND L48

L50 407 S L49 AND (CURE## OR CURING OR CURAB##### OR CUREAB#####)

L51 228 S L50 AND (CATION##### OR CROSSLINK##### OR CROSS LINK### OR INITIAT#####)

L52 3659 S EPOX##(8A)("F" OR FL OR FLUORO OR
PERFLUORO? OR FLUOROCARBON OR FLUORIN##### OR POLYFLUORO?)

L53 54970 S EPOX###/TI

L54 103272 S ("F" OR FL OR FLUORO OR PERFLUORO? OR
FLUOROCARBON OR FLUORIN##### OR POLYFLUORO?)/TI

L55 791035 S (REACT##### OR FUNCTIONAL OR SUBSTITUENT)/TI

L56 18247 S (SUBSTITUENT OR SUBSTITUT#####)(8A)("F" OR FL OR FLUORO OR PERFLUORO? OR
FLUOROCARBON OR FLUORIN##### OR POLYFLUORO?)

L57 167663 S SUBSTITUT#####/TI

L58 27222 S EPOX####(8A)(CURE## OR CURING OR CURAB###
OR CUREAB#####)

L59 42942 S (CURE## OR CURING OR CURAB##### OR CUREAB#####)/TI

L60 1278515 S (POLYMER##### OR POLY OR POLYM##)/TI,ST,IT

L61 116 S L51 AND L52

L62 107 S L51 AND L53

L63 35 S L51 AND L54

L64 19 S L51 AND L55

L65 5 S L51 AND L56

FILE 'HCAPLUS' ENTERED AT 20:09:06 ON 21 MAR 2002

L66 1 S L51 AND L57
L67 123 S L51 AND L58
L68 92 S L51 AND L59
L69 110 S L51 AND L60
L70 59 S L51 AND CURING AGENT
L71 58 S L70 AND (L52 OR L53 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60)
L72 12703 S L43(L)(CURE## OR CURING OR CURAB##### OR CUREAB#####)
L73 22938 S EPOX####(4A)(CURE## OR CURING OR CURAB##### OR CUREAB#####)
L74 7122 S L53 AND L59
L75 42 S L70 AND (L72 OR L73 OR L74)
D BIB AB HITSTR 1-42
L76 6660 S L54 AND (L56 OR L57)
L77 40 S L50 AND (PROMOT##### OR ACCELERA#####)
L78 241 S L51 OR L77
L79 1 S L76 AND L78
L80 9552 S CATALY#####(4A)(CURE## OR CURING OR CURAB##### OR CUREAB#####)
L81 39 S L50 AND L80
L82 247 S L78 OR L81
L83 2379 S HARDEN#####(4A)(CURE## OR CURING OR CURAB##### OR CUREAB#####)
L84 249 S (L50 AND L83) OR L82
L85 206 S L84 NOT (L75 OR L79)
L86 70 S L85 AND (INK JET### OR INKJET## OR (B41J002? OR C08G059? OR A01G025)/IC)
L87 1 S L86 AND (NOZZLE OR HEAD OR PRINthead OR ORIFICE OR FLOWPATH OR FLOW PATH OR
(INK OR DROP OR DROPLET)(2A)(FLOW### OR TRAVEL### OR PATH))
L88 407 S (L50 OR L51) OR (L61 OR L62 OR L63 OR L64 OR L65 OR L66 OR L67 OR L68 OR L69 OR L70 OR
L71) OR L85
L89 144 S L88 AND (INK JET### OR INKJET## OR (B41J002? OR C08G059? OR A01G025)/IC)
L90 1 S L89 AND (NOZZLE OR HEAD OR PRINthead OR ORIFICE OR FLOWPATH OR FLOW PATH OR
(INK OR DROP OR DROPLET)(2A)(FLOW### OR TRAVEL### OR PATH))
L91 1586 S L45 AND (INK JET### OR INKJET## OR
(B41J002? OR C08G059? OR A01G025)/IC)
L92 26 S L91 AND (NOZZLE OR HEAD OR PRINthead OR
ORIFICE OR FLOWPATH OR FLOW PATH OR (INK OR DROP OR DROPLET)(2A)(FLOW### OR TRAVEL###
OR PATH))
L93 25 S L92 NOT (L87 OR L75 OR L79)
L94 15136 S L43(L)(CURE## OR CURING OR CURAB##### OR
CUREAB##### OR HARDEN###)
L95 36234 S EPOX####(8A)(CURE## OR CURING OR CURAB####
OR CUREAB##### OR HARDEN###)
L96 3 S L93 AND (L94 OR L95)
L97 10 S L93 AND (AGENT## OR PROMOT##### OR CATALY##### OR CATION### OR INITIAT##### OR
CROSSLINK##### OR CROSS LINK#####)
L98 13 S (L96 OR L97)
L99 8 S L88 AND COUPLING AGENTS
L100 6 S L99 NOT (L87 OR L75 OR L79 OR L98)
L101 7523 S COATING(L)(L32 OR L33 OR L34)
L102 0 S L93 AND ACCELERA#####
L103 10443 S (LAYER OR COATING OR REPELLANT)(3A) ("F" OR FL OR FLUORO OR PERFLUORO? OR
FLUOROCARBON OR FLUORIN##### OR POLYFLUORO?)
L104 31 S L88 AND (L101 OR L03)
L105 29 S L104 NOT (L99 OR L87 OR L75 OR L79 OR L98)
L106 0 S L88 AND CLOG###
L107 2 S L93 AND COUPL###
L108 30 S L105 OR (L107 NOT (L99 OR L87 OR L75 OR L79 OR L98))

Other search reports

L6 ANSWER 1 OF 1 DPCI COPYRIGHT 2002 DERWENT INFORMATION LTD
 AN 1996-466612 [47] DPCI
 DNN N1996-393011 DNC C1996-146447
 TI Liq. jet recording head - comprises curable epoxy cpd., cpd. having fluorocarbon moiety and curing agent, for discharge of droplets.
 DC A21 A89 E14 E16 G06 L03 P75 T04
 IN MIYAGAWA, M; OHKUMA, N; TOSHIMA, H
 PA (CANO) CANON KK
 CYC 23
 PI EP 738603 A2 19961023 (199647)* EN 15p B41J002-16
 R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
 AU 9650801 A 19961031 (199651) C08G059-08
 JP 08290572 A 19961105 (199703) 10p B41J002-05
 CA 2174589 A 19961022 (199708) B41J002-135
 EP 738603 A3 19970723 (199743)
 MX 9601501 A1 19970401 (199821) A01G025-00
 SG 64375 A1 19990427 (199933) B41J002-16
 CA 2174589 C 19991207 (200017) EN B41J002-135
 AU 724344 B 20000921 (200050) C08G059-08
 CN 1145855 A 19970326 (200106) B41J002-16
 EP 738603 B1 20010801 (200144) EN B41J002-16
 R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
 DE 69614176 E 20010906 (200159) B41J002-16
 ES 2158970 T3 20010916 (200164) B41J002-16

Cited by Examiner

*Equivalent
for
08/634,255*

CITING PATENT	CAT	CITED PATENT	ACCNO
EP 738603	A2	No Citations	
EP 738603	B1	EP 230112 A 1987-207472/30 PA: (STAH) STANDARD OIL CO OHIO IN: GIORDANO, P J; SMIERCLAK, R C EP 388979 A 1990-291934/39 PA: (CANO) CANON KK IN: EBISAWA, I; NOGUCHI, H EP 609860 A 1994-250736/31 PA: (CANO) CANON KK IN: INADA, G; MIYAGAWA, M; OKUMA, N; SATO, T; TOSHIMA, H; OHKUMA, N JP 57157765 A 1982-95785E/45 PA: (FUIT) FUJITSU LTD JP 60115622 A 1985-187193/31 PA: (TOKE) TOSHIBA KK US 3720639 A 1973-17926U/13 PA: (USNA) US SEC OF NAVY US 4816545 A 1987-349789/50 PA: (AUSY) AUSIMONT SPA IN: DONATI, G; RE, A	

REN LITERATURE CITATIONS UPR: 20011002

Citations by Examiner

CITING PATENT	CAT	CITED LITERATURE
EP 738603	B1	PATENT ABSTRACTS OF JAPAN vol. 006, no. 263 (M-181), 22 December 1982 & JP 57 157765 A (FUJITSU KK), 29 September 1982, JP 60115622 A
EP 738603	B1	PATENT ABSTRACTS OF JAPAN vol. 009, no. 267 JP 60115622 A

3/21/02 08/634,255

Equivalent

L12 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:107165 HCAPLUS

DN 126:119452

TI Ink-jet recording head with multiple ink-jet orifices

IN Ookuma, Norio; Myagawa, Masashi; Toshima, Hiroaki

PA Canon Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08290572	A2	19961105	JP 1995-96737	19950421
AU 9650801	A1	19961031	AU 1996-50801	19960422 <--
AU 724344	B2	20000921		

PRAI JP 1995-96737 A 19950421 <--

AB The recording head is formed with a resin which is cured from a compn. contg. a curable epoxy compd., a fluorocarbon-having compd., and a crosslinking agent. The crosslinking agent may be a cationic polymn. initiator, the fluorocarbon-having compd. has a formula HO-CH₂-(CF₂)_n-CH₂-OH (n = 1-20), and the epoxy compd. may be an aliph. ring or an arom. one contg. oxycyclohexane skeleton.

IT 307-30-2 376-90-9 1992-15-0 2093-04-1

RL: RCT (Reactant)

(F-contg. compd. contained in curable compn. for ink-jet recording head)

RN 307-30-2 HCAPLUS

CN 1-Octanol, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

HO-CH₂-(CF₂)₆-CF₃

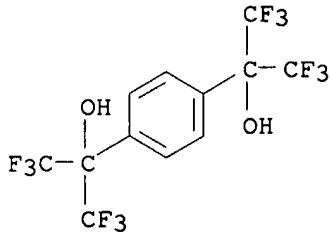
RN 376-90-9 HCAPLUS

CN 1,5-Pantanediol, 2,2,3,3,4,4-hexafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

HO-CH₂-(CF₂)₃-CH₂-OH

RN 1992-15-0 HCAPLUS

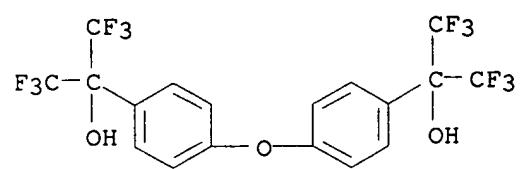
CN 1,4-Benzenedimethanol, .alpha.,.alpha.,.alpha.',.alpha.'-tetrakis(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 2093-04-1 HCAPLUS

CN Benzenemethanol, 4,4'-oxybis[.alpha.,.alpha.-bis(trifluoromethyl)-] (9CI) (CA INDEX NAME)

3/21/02 08/634,255



(12) PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. AU 199650801 B2
(10) Patent No. 724344

(54) Title
Liquid jet recording head and process for production thereof

(51)⁷ International Patent Classification(s)
C08G 059/08 C08K 005/095
C08G 059/04 C08K 005/17
C08J 005/00

(21) Application No: 199650801 (22) Application Date: 1996.04.22

(30) Priority Data

(31) Number (32) Date (33) Country
7-96737 1995.04.21 JP

(43) Publication Date : 1996.10.31
(43) Publication Journal Date : 1996.10.31
(44) Accepted Journal Date : 2000.09.21

(71) Applicant(s)
Canon Kabushiki Kaisha

(72) Inventor(s)
Norio Ohkuma; Masashi Miyagawa; Hiroaki Toshima

(74) Agent/Attorney
SPRUSON and FERGUSON, GPO Box 3898, SYDNEY NSW 2001

(56) Related Art
US 5478606
US 3852222
US 5458254

AUSTRALIA
PATENTS ACT 1990

COMPLETE SPECIFICATION
FOR A STANDARD PATENT

ORIGINAL

Name and Address
of Applicant: Canon Kabushiki Kaisha
30-2, 3-chome, Shimomaruko
Ohta-ku
Tokyo
JAPAN

Actual Inventor(s): Norio Ohkuma, Masashi Miyagawa and Hiroaki Toshima

Address for Service: Spruson & Ferguson, Patent Attorneys
Level 33 St Martins Tower, 31 Market Street
Sydney, New South Wales, 2000, Australia

Invention Title: Liquid Jet Recording Head and Process for Production
Thereof

The following statement is a full description of this invention, including the
best method of performing it known to me/us:-

3/21/02 08/634,255 Cited by Australia

21mar02 21:21:40 User259284 Session D1713.1

File 350:Derwent WPIX 1963-2001/UD,UM &UP=200219
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Set	Items	Description
S1	3	PN=(US 5478606 OR US 3852222 OR US 5458254),
? logoff		

1/9/1

DIALOG(R) File 350:Derwent WPIX
(c) 2002 Derwent Info Ltd. All rts. reserv.
WPI Acc No: 1994-250736/199431
XRAM Acc No: C94-114026
XRPX Acc No: N94-198154

Ink jet recording head mfr. for full line type recording head - by forming ink flow path pattern and coating with epoxy resin forming ink ejection outlets in coating and dissolving pattern for colour recording head

Patent Assignee: CANON KK (CANO)

Inventor: INADA G; MIYAGAWA M; OKUMA N; SATO T; TOSHIMA H; OHKUMA N

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 609860	A2	19940810	EP 94101556	A	19940202	199431 B
JP 6286149	A	19941011	JP 9410078	A	19940131	199445
US 5478606	A	19951226	US 94190464	A	19940202	199606
			US 95392686	A	19950223	
EP 609860	A3	19950816	EP 94101556	A	19940202	199613
CN 1104585	A	19950705	CN 94102753	A	19940202	199729
EP 609860	B1	19980603	EP 94101556	A	19940202	199826
DE 69410648	E	19980709	DE 610648	A	19940202	199833
ES 2116478	T3	19980716	EP 94101556	A	19940202	199835
KR 152452	B1	19981201	KR 941857	A	19940202	200031

Abstract (Basic): EP 609860 A

The mfr. comprises A) forming an ink flow path pattern on a substrate (II), having ink ejection pressure generating elements, using a dissolvable resin (III); B) forming a resin coating layer (IV) on the pattern, which serve as ink flow path walls, by dissolving a coating resin (V) which is solid at normal temps. and contains an epoxy resin (VI) in a solvent (VII) then coating the soln. on the ink flow path pattern; C) forming ink ejection outlets in (IV) above the ink ejection pressure generating elements; and D) dissolving the ink flow path pattern.

There is a further step after dissolving the ink flow path pattern of dipping (IU) in a soln. contg. a reducing agent (X) and heating. The ink ejection outlets are formed by photolithography, by dry etching with oxygen plasma, or by an eximer laser. The conc. of the (V) in (VII) is pref. 30-70 (40-60) wt.%, it is a photosensitive resin and contains a cationic photopolymerisation initiator (VIII), pref. an aromatic iodonium salt and a reducing agent (IX), pref. Cu triflate. (VI) has an epoxy equiv. of 2,000 or less. (X) contains Cu ions, pref. Cu triflate.

USE/ADVANTAGE - (I) is effective for a full line type recording head and for a colour recording head. The distance between the ink ejection pressure generating element and the orifice is set with high precision and high reproducibility. Laser and plasma do not damage the base plate during prodn. (V) may be thermosetting or photosensitive.

Abstract (Equivalent): US 5478606 A

A method of manufacturing an ink jet recording head, comprises: (1) forming an ink flow path pattern on a substrate with the use of a dis-soluble resin, the substrate having ink ejection pressure generating elements thereon; (2) forming on the ink flow path pattern a coating resin layer, which will serve as ink flow path walls, by dissolving in a solvent a coating resin containing an epoxy resin which is solid at ordinary temperatures, and then solvent-coating the solution on the ink flow path pattern; (3) forming ink ejection outlets in the coating resin layer above the ink ejection pressure generating elements; and (4) dissolving the ink flow path pattern.

1/9/2
 DIALOG(R) File 350:Derwent WPIX
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009694591 **Image available**

WPI Acc No: 1993-388144/199349

Related WPI Acc No: 1998-044485

XRAM Acc No: C93-172627

XRPX Acc No: N93-299752

High resolution ink jet recording head mfr. - by oxygen plasma dry etching to form ink ports and resin elution to form flow passages

Patent Assignee: CANON KK (CANO)

Inventor: MIYAGAWA M; OHKUMA N; TOSHIMA H

Number of Countries: 018 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 573023	A1	19931208	EP 93108889	A	19930602	199349	B
JP 5330066	A	19931214	JP 92144502	A	19920604	199403	
US 5458254	A	19951017	US 9370842	A	19930603	199547	
			US 94194810	A	19940214		
			US 94364020	A	19941227		
EP 573023	B1	19981230	EP 93108889	A	19930602	199905	
			EP 97116871	A	19930602		
DE 69322812	E	19990211	DE 622812	A	19930602	199912	
			EP 93108889	A	19930602		
US 5945260	A	19990831	US 9370842	A	19930603	199942	

Abstract (Basic): EP 573023 A

Mfr. of a liq. jet recording head comprises (i) forming an ink flow passage pattern on a substrate (1) by means of a resin layer (4); (ii) forming a covering resin layer (5) on the resin layer (4); (iii) forming an ink discharging port pattern on layer (5) using a material (6) having high resistance to an O₂ plasma; (iv) O₂ plasma dry etching the resin layer (4) using the ink discharging port pattern as a mask; and (v) eluting the resin layer (4).

ADVANTAGE - Problems such as tapering encountered when laser machining is used are avoided and high resolution recording heads with precisely machined liq. passages can be obtd. at high productivity using a widened range of materials to obtain a prod. with stable ink discharge characteristics.

Abstract (Equivalent): US 5458254 A

Mfr. of liq. jet recording heat includes (1) forming ink flow passage pattern on substrate by dissolvable resin layer; (2) forming covering resin layer on the pattern; (3) forming an ink discharge port pattern by a material having resistance to an oxygen plasma in the surface of the covering resin layer; (4) forming ink discharge ports by dry etching the covering resin layer by application of oxygen plasma with the discharge port pattern on mark; and (5) eluting the dissolvable resin layer.

ADVANTAGE - Method enables productivity to be improved to provide inexpensive, precise, reliable ink jet recording head having high resolution. Good mechanical strength and chemical tolerance are provided.

3/21/02 08/634,255 Cited by Australia

1/9/3
DIALOG(R) File 350:Derwent WPIX
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001214605

WPI Acc No: 1974-88510V/**197451**

Crosslinkable fluorinated epoxy resins useful as coatings - prepared from one or more fluorinated diol(s) and epichlorohydrin

Patent Assignee: US SEC OF NAVY (USNA)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 3852222	A	19741203			197451	B

Priority Applications (No Type Date): US 73373322 A 19730625

Abstract (Basic): US 3852222 A

A random epoxy(glycidyl)-terminated copolymer having units.
 $(RfCH_2CHCH_2-x)(R'fCH_2CHCH_2-y)$ (I) and R'f is $-OCH_2(CF_2)_zCH_2O-$ z being 2-12, x is 1-4, and y is 0-4, provided y is not always equal to 0. (I) is pref. either crosslinked via pendant OH gps. using diisocyanates (toluene- or hexamethylenediisocyanate or their deriv.) or via epoxy gps. at terminals using polyamines esp. diethylene triamine. (I) is pref. prepared by reacting 1,3-bis(2-hydroxyhexafluoro-2-propyl)benzene, 2,2,3,3,4,4-hexafluoro-1,5-pentanediol and/or 1,4-bis(2-hydroxyhexafluoro-2-propyl)benzene with epichlorohydrin pref. in equimolar amounts, and NaOH in the presence of acetone, and heating to reflux. Fluorinated polymers obtd. are useful as coatings, adhesives and laminates.

cited by EPO

L12 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 1991:418674 HCAPLUS

DN 115:18674

TI Derivatives of 1,3- or 1,4-bis(hexafluoroisopropyl)benzene, or 2,2-bisphenylhexafluoropropane, ink-repellent agent containing such deriv. compound, head for ink-jet recording treated with such ink-repellent agent and ink jet recording device equipped with such head

IN Ebisawa, Isao; Noguchi, Hiromichi

PA Canon K. K., Japan

SO Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 388979	A2	19900926	EP 1990-105574	19900323 <--
	EP 388979	A3	19910206		
	JP 03007781	A2	19910114	JP 1990-62842	19900315
	JP 11286114	A2	19991019	JP 1999-9512	19990118
	JP 3217761	B2	20011015		

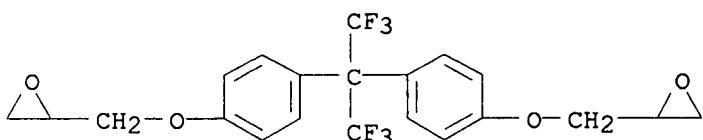
PRAI JP 1989-70548 A 19890324
JP 1990-62842 A 19900315

OS MARPAT 115:18674

AB The title derivs. are I, or II [X = epoxy group or CH₂:C(Y)CO₂(CH₂CHOHCH₂O)_m(CO)_n; Y = H, Me; m, n = 0 or 1, when m = 0, n is also 0]. The derivs. are used as ink-repellent agent or ink-jet printing head in recording app.IT 2994-63-0 69709-05-3 108050-41-5
108050-42-6 109033-14-9 113962-81-5
122715-22-4 122715-23-5 134426-39-4RL: USES (Uses)
(ink repellent, on ink-jet printing head)

RN 2994-63-0 HCAPLUS

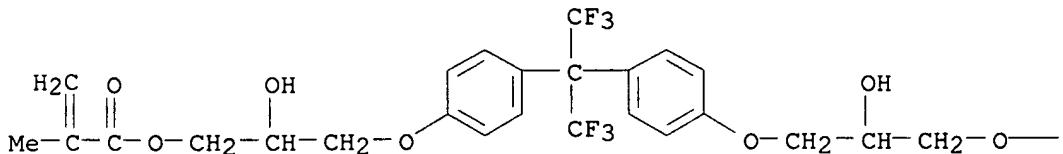
CN Oxirane, 2,2'-{[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis(4,1-phenyleneoxymethylene)}bis- (9CI) (CA INDEX NAME)

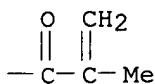


RN 69709-05-3 HCAPLUS

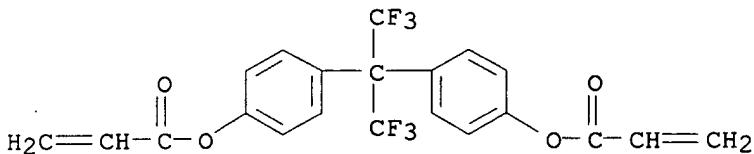
CN 2-Propenoic acid, 2-methyl-, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A

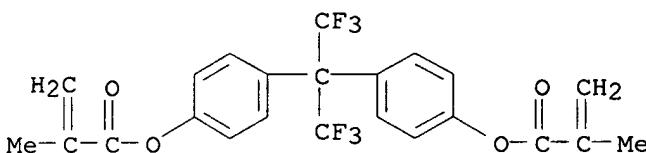




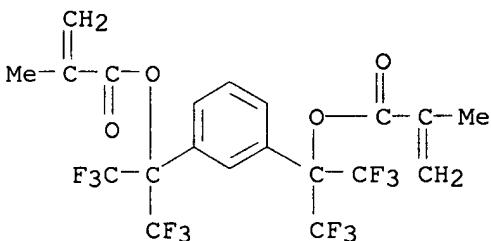
RN 108050-41-5 HCAPLUS
 CN 2-Propenoic acid, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene ester (9CI) (CA INDEX NAME)



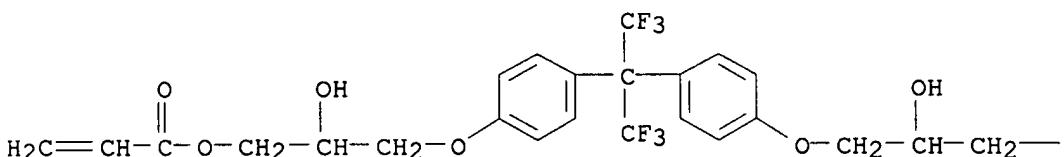
RN 108050-42-6 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene ester (9CI) (CA INDEX NAME)



RN 109033-14-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1,3-phenylenebis[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] ester (9CI) (CA INDEX NAME)

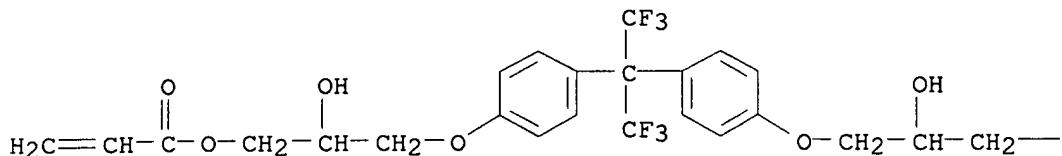


RN 113962-81-5 HCAPLUS
 CN 2-Propenoic acid, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

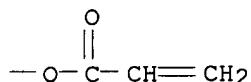


\ 3/21/02 08/634,255

PAGE 1-A



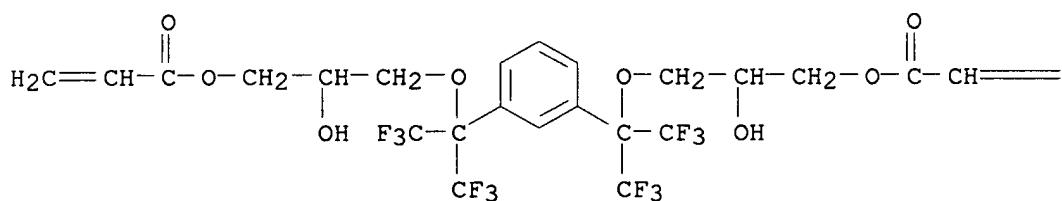
PAGE 1-B



RN 122715-22-4 HCPLUS

CN 2-Propenoic acid, 1,3-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxy(2-hydroxy-3,1-propanediyl)] ester (9CI)
(CA INDEX NAME)

PAGE 1-A

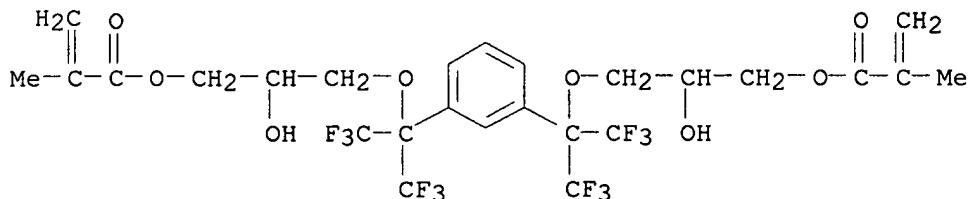


PAGE 1-B

$=\text{CH}_2$

RN 122715-23-5 HCPLUS

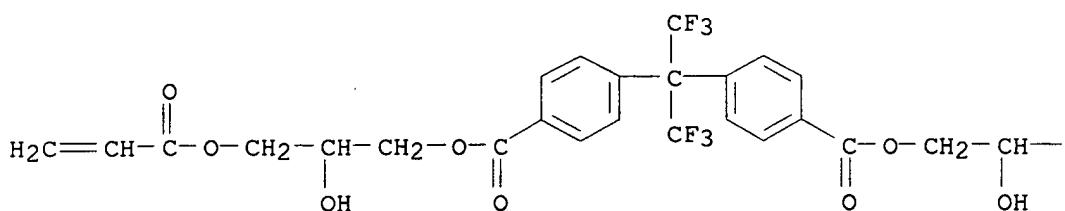
CN 2-Propenoic acid, 2-methyl-, 1,3-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxy(2-hydroxy-3,1-propanediyl)] ester (9CI)
(CA INDEX NAME)



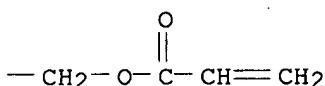
RN 134426-39-4 HCPLUS

CN Benzoic acid, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-[2-hydroxy-3-[(1-oxo-2-propenyl)oxy]propyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

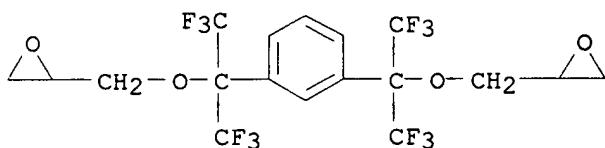


IT 26146-93-0P 77974-91-5P 134426-38-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and use of, as ink-repellent, on ink-jet printing head)

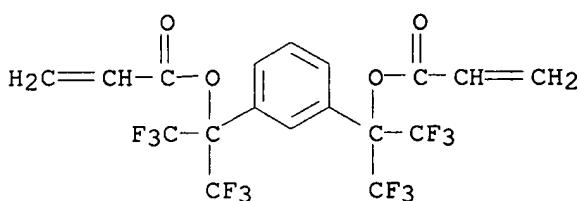
RN 26146-93-0 HCAPLUS

CN Oxirane, 2,2'-(1,3-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene])bis- (9CI) (CA INDEX NAME)



RN 77974-91-5 HCAPLUS

CN 2-Propenoic acid, 1,3-phenylenebis[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] ester (9CI) (CA INDEX NAME)

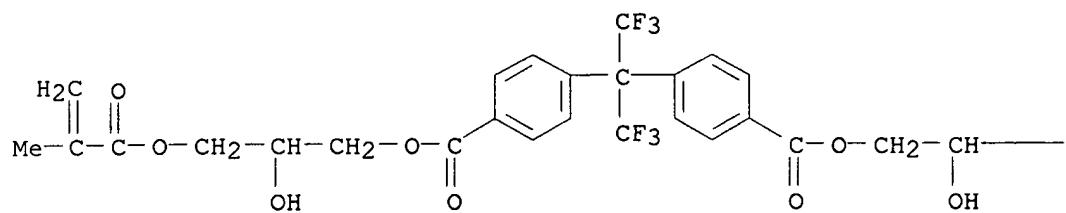


RN 134426-38-3 HCAPLUS

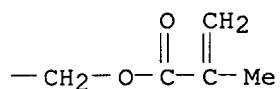
CN Benzoic acid, 4,4'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene)bis-, bis[2-hydroxy-3-[2-methyl-1-oxo-2-propenyl]oxy]propyl ester (9CI) (CA INDEX NAME)

3/21/02 08/634,255

PAGE 1-A



PAGE 1-B



3/21/02 08/634,255

L12 ANSWER 5 OF 6 HCPLUS COPYRIGHT 2002 ACS
AN 1985:561556 HCPLUS
DN 103:161556
TI Epoxy resin compositions
PA Toshiba Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

cited by
EPO

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60115622	A2	19850622	JP 1983-223323	19831129 <--
AB	Polymer compns. with excellent insulating properties at high temps. and humidities, useful for sealing and impregnating of elec. app. (no data), contain epoxy resins, hardeners having .gtoreq.2 phenolic OH groups, fluorinated carbon (I) [51311-17-2], and curing accelerators. Thus, cresol novolak epoxy resin (epoxy equiv. 220) 170, brominated novolak epoxy resin (epoxy equiv. 290) 20, novolak hardener 80, PPh ₃ 2, I 5, powd. fused silica 720, montan wax 2, C black 3, and a silane coupling agent 4 parts were kneaded, cooled, pulverized, transfer molded at 180.degree. for 3 min, and post-cured at 180.degree. for 8 h to obtain test plates which showed resistivity 3 .times. 10 ¹⁴ .OMEGA.-cm at 150.degree. and 3 .times. 10 ¹⁵ .OMEGA.-cm at 25.degree. after 7 days in satd. steam at 120.degree.; vs. 1 .times. 10 ¹⁴ and 5 .times. 10 ¹⁴ .OMEGA.-cm, resp., without the I.				

IT 51311-17-2
RL: USES (Uses)
(epoxy resin compns. contg., for heat- and moisture-resistant elec. insulation)

RN 51311-17-2 HCPLUS
CN Carbon fluoride (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 1319-77-3D, polymers with epoxides
RL: USES (Uses)
(novolak, potting compns., contg. fluorinated carbon for high heat and moisture resistance)

RN 1319-77-3 HCPLUS
CN Phenol, methyl- (9CI) (CA INDEX NAME)



D1-OH

D1-Me

L108 ANSWER 29 OF 30 HCPLUS COPYRIGHT 2002 ACS

AN 1979:458187 HCPLUS

DN 91:58187

TI Catalytic solutions of sulfonium salts

IN Tsao, Jung-Hsien; Ketley, Arthur D.

PA Grace, W. R., and Co., USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

IC C08F002-46; C08F004-00

NCL 424044000

CC 36-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4154872	A	19790515	US 1978-904158	19780509
	US 4179400	A	19791218	US 1979-6322	19790125

PRAI US 1978-904158 19780509

AB Photocatalytic solns. of a sulfonium salt of a complex anion, capable of yielding a Lewis acid when irradiated, are prep'd. by **reaction** of a sulfonium halide with an alkali metal or NH₄ salt of the complex anion in a solvent mixt. contg. a polyol and a lactone and removal of the alkali metal or NH₄ halide byproduct by filtration. The compn. mixes readily with **epoxy resin** formulations for photochem. **crosslinking**. Thus, Ph₃S⁺ PF₆⁻ [57835-99-1] was prep'd. by stirring at room temp. a mixt. of a 50% polypropylene glycol [25322-69-4] soln. of Ph₃S⁺ Cl⁻ 10, KPF₆ 31, and .gamma.-butyrolactone [96-48-0] 25 parts. Within 0.5 h a homogeneous soln. was obtained after KCl removal. The catalyst soln. (10%) was formulated with 90% of an epoxy blend comprising 3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate 60, bisphenol A diglycidyl ether 14, 1,4-butanediol diglycidyl ether 5, silicone oil 0.75, and surfactant 0.25 part. A film (0.0012 cm thick) of the compn. on a steel plate was cured to an adherent, tack-free **coating** in 1 pass through a UV unit at 0.9 s exposure and conveyer speed 30.5 m/min.

IT **Epoxy resins, uses and miscellaneous**

RL: USES (Uses)

(crosslinking catalysts for, photochem., sulfonium salt solns. as)

IT Coating materials

(epoxy, crosslinking of, photocatalytic solns. of sulfonium salts for)

IT 25085-98-7 59045-72-6 70977-27-4

RL: USES (Uses)

(crosslinking catalysts for, photochem., sulfonium salt solns. as)

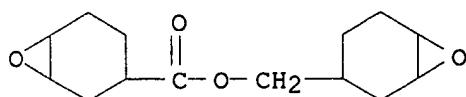
RN 25085-98-7 HCPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2386-87-0

CMF C14 H20 O4



3/21/02 08/634,255

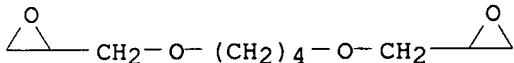
RN 59045-72-6 HCPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, polymer with 2,2'-(1,4-butanediylbis(oxymethylene))bis[oxirane] and 2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 2425-79-8

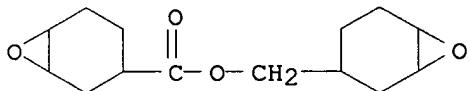
CMF C10 H18 O4



CM 2

CRN 2386-87-0

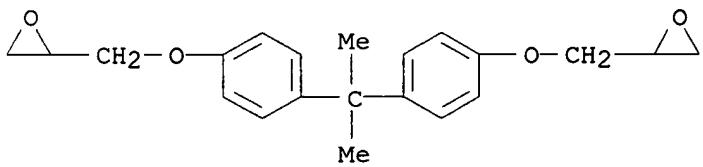
CMF C14 H20 O4



CM 3

CRN 1675-54-3

CMF C21 H24 O4



RN 70977-27-4 HCPLUS

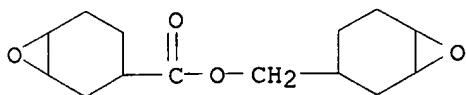
CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, polymer with oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 2386-87-0

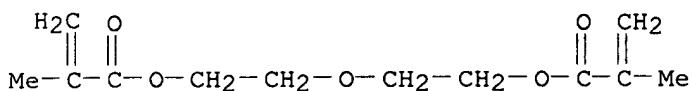
CMF C14 H20 O4

3/21/02 08/634,255



CM 2

CRN 2358-84-1
CMF C12 H18 O5

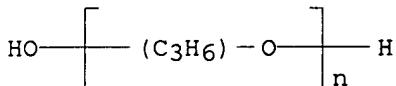


IT 25322-69-4

RL: USES (Uses)
(solvents, for sulfonium salt photochem. **crosslinking**
catalysts, for **epoxy resins**)

RN 25322-69-4 HCPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI)
(CA INDEX NAME)



L75 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2002 ACS

AN 1980:447876 HCAPLUS

DN 93:47876

TI Curing agent for polyepoxides, epoxy resins and cured composites

IN Serafini, T. T.; Delvigs, P.; Vannucci, R. D.

PA United States National Aeronautics and Space Administration, USA

SO U. S. Pat. Appl., 14 pp. Avail. NTIS.

CODEN: XAXXAV

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 70771		19800118	US 1979-70771	19790830

AB Curing agents which impart char-forming properties to epoxy resins when burned comprise a bis(aminoimide) (I, R = tetravalent aryl, and R1 = divalent aryl). Thus, 8.38 g 4,4'-(hexafluoroisopropylidene)bis(phthalic anhydride) [1107-00-2] in 26.64 g N-methylpyrrolidone (II) was added dropwise at room temp. to 7.29 g 4,4'-methylenedianiline [101-77-9] in 23.76 g II. The soln. was stirred 2 h and refluxed 2 h to give bis(aminoamide) (III) [72704-37-1] m. 165-75.degree.. Graphite fibers impregnated with 10 g N,N,N',N'-tetraglycidyl methylenedianiline [28768-32-3] and 16.1 g III had flexural strengths 224 .times. 103 psi and 106 .times. 103 psi at room temp. and 177.degree., resp. after 24 h curing in air at 204.degree..

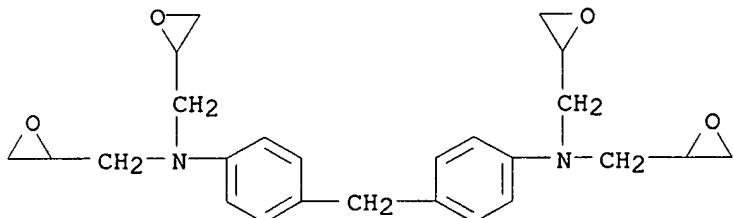
IT 28768-32-3

RL: USES (Uses)

(crosslinking agents for, bis(aminoimides) as)

RN 28768-32-3 HCAPLUS

CN Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)- (9CI) (CA INDEX NAME)]



'L108 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2002 ACS
 AN 1991:124655 HCAPLUS
 DN 114:124655
 TI Acid-, weather-, and soil-resistant coatings with good surface properties
 IN Numa, Nobuhige; Nakahata, Akimasa; Yamane, Masahiro; Isozaki, Osamu;
 Nakai, Noboru
 PA Kansai Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L027-12
 ICS C09D127-16
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02228350	A2	19900911	JP 1989-50585	19890302

AB The title coatings useful for automobile topcoats contain dispersion particles which are prep'd. by radical polymn. of vinyl monomers in an org. solvent in the presence of a copolymer, as dispersion stabilizer, of fluoro vinyl monomers, hydroxy vinyl monomers, vinyl monomers having hydroxy and/or hydrolyzable groups attached to a Si atom, and epoxy vinyl monomers. Radical polymn. of glycidyl vinyl ether 15, CH₂:CHSi(OH)(OMe)₂ 15, CH₂:CHO(CH₂)₄OH 10, vinyl cyclohexyl ether 10, and CF₂:CFCl 50 parts gave a copolymer (I) with no.-av. mol. wt. 7000. Radical polymn of CH₂:CHCO₂C₂H₄C₈F₁₇ 10, CH₂:CHCO₂C₂H₄OH 10, CH₂:C(Me)CO₂C₃H₆Si(OMe)₃ 10, oxiranylcyclohexylmethyl acrylate 50, styrene 10, and CH₂:CH(Me)CO₂C₄H₉ 10 parts and addn. reaction with acrylic acid gave a dispersion stabilizer. Polymg. acrolein 20, CH₂:C(Me)CO₂Me 42, CH₂:CMeCO₂C₂H₄OH 35, and CH₂:CHC₆H₄CH:CH₂ 3 parts in the presence of 50% stabilizer gave a dispersion with particle diam 0.16 .mu.m. Applying I 30, the dispersion 70, tris(ethylacetoacetato) aluminum, and TiO₂ 35 parts onto a undercoated- and second coated-steel panel and **curing** at 140.degree. resulted in a top coat with good surface properties and good resistance to water, acid, etc.

T Crosslinking catalysts

(coatings contg., for automobiles)

IT Dispersing agents

(polymeric, reactive, for polymn. of vinyl monomers)

IT Fluoropolymers

RL: USES (Uses)
(reactive dispersion stabilizers, for polymn. of vinyl monomers)

T 79-10-7, 2-Propenoic acid, reactions 79-41-4, Methacrylic acid, reactions

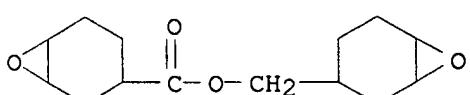
RL: RCT (Reactant)
(esterification of, with ethoxy-contg. polymers)

IT 2386-87-0

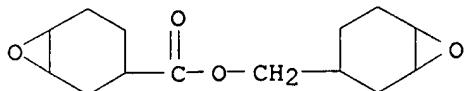
RL: USES (Uses)
(coatings contg., for automobiles)

RN 2386-87-0 HCAPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



3/21/02 08/634,255



IT 131718-56-4 131718-58-6 131718-61-1

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, for automobile panels, with good surface properties)

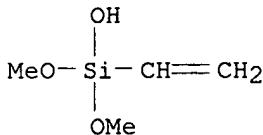
RN 131718-56-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with chlorotrifluoroethene, ethenylbenzene, ethenyldimethoxysilanol, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, [(ethenyloxy)methyl]oxirane, methyl 2-methyl-2-propenoate, 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-methyl-2-propenoate and 2-propenenitrile, graft (9CI) (CA INDEX NAME)

CM 1

CRN 131718-55-3

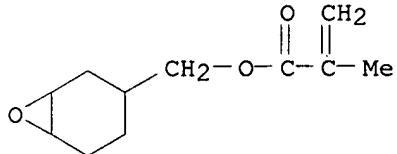
CMF C4 H10 O3 Si



CM 2

CRN 82428-30-6

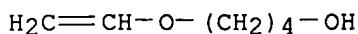
CMF C11 H16 O3



CM 3

CRN 17832-28-9

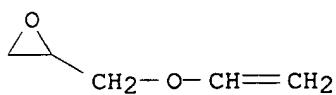
CMF C6 H12 O2



3/21/02 08/634,255

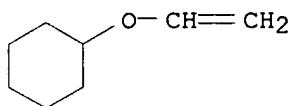
CM 4

CRN 3678-15-7
CMF C5 H8 O2



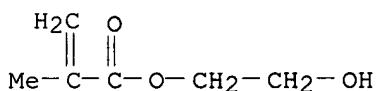
CM 5

CRN 2182-55-0
CMF C8 H14 O



CM 6

CRN 868-77-9
CMF C6 H10 O3



CM 7

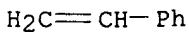
CRN 107-13-1
CMF C3 H3 N



CM 8

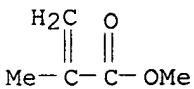
CRN 100-42-5
CMF C8 H8

3/21/02 08/634,255



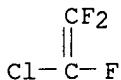
CM 9

CRN 80-62-6
CMF C5 H8 O2



CM 10

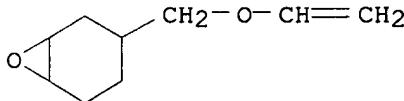
CRN 79-38-9
CMF C2 C1 F3



RN 131718-58-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with chlorotrifluoroethene, ethenylbenzene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, 3-[(ethenyloxy)methyl]-7-oxabicyclo[4.1.0]heptane, [3-(ethenyloxy)propyl]trimethoxysilane, methyl 2-methyl-2-propenoate, 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-methyl-2-propenoate and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

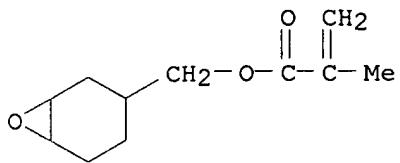
CRN 131718-57-5
CMF C9 H14 02



CM 2

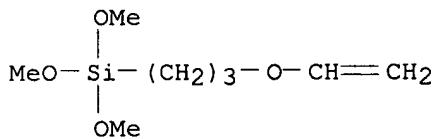
CRN 82428-30-6
CMF C11 H16 O3

3/21/02 08/634, 255



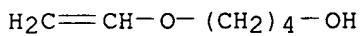
CM 3

CRN 41622-27-9
CMF C8 H18 O4 Si



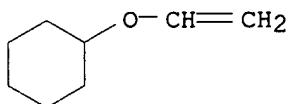
CM 4

CRN 17832-28-9
CMF C6 H12 O2



CM 5

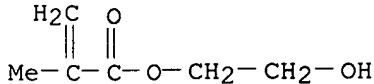
CRN 2182-55-0
CMF C8 H14 O



CM 6

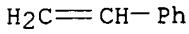
CRN 868-77-9
CMF C6 H10 O3

3/21/02 08/634, 255



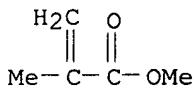
CM 7

CRN 100-42-5
CMF C8 H8



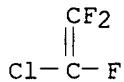
CM 8

CRN 80-62-6
CMF C5 H8 O2



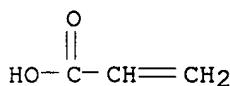
CM 9

CRN 79-38-9
CMF C2 Cl F3



CM 10

CRN 79-10-7
CMF C3 H4 O2



RN 131718-61-1 HCAPLUS

STIC-EIC2800 CP4-9C18

Jeff Harrison 306-5429

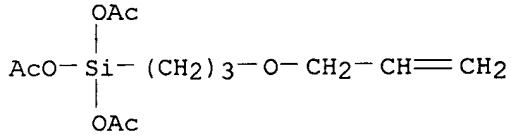
3/21/02 08/634,255

CN Butanoic acid, ethenyl ester, polymer with chlorotrifluoroethene, ethenyl acetate, ethenylbenzene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, methyl 2-methyl-2-propenoate, octahydro-3-[2-propenyloxy)methyl]-2H-indeno[1,2-b]oxirene, 2-propenenitrile, 2-(2-propenyloxy)ethanol, [3-(2-propenyloxy)propyl]silylidyne triacetate and tetrafluoroethene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 131718-60-0

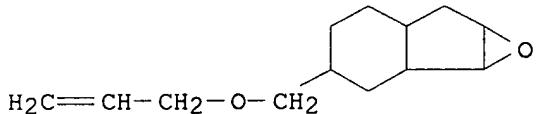
CMF C12 H20 O7 Si



CM 2

CRN 131718-59-7

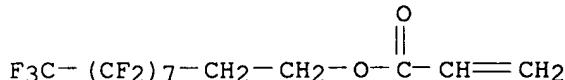
CMF C13 H20 O2



CM 3

CRN 27905-45-9

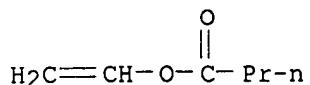
CMF C13 H7 F17 O2



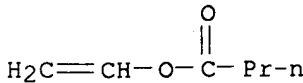
CM 4

CRN 123-20-6

CMF C6 H10 O2

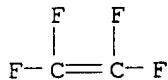


3/21/02 08/634,255



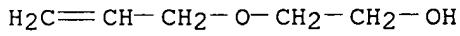
CM 5

CRN 116-14-3
CMF C2 F4



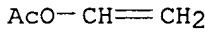
CM 6

CRN 111-45-5
CMF C5 H10 O2



CM 7

CRN 108-05-4
CMF C4 H6 O2



CM 8

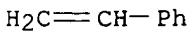
CRN 107-13-1
CMF C3 H3 N



CM 9

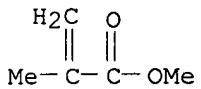
CRN 100-42-5
CMF C8 H8

3/21/02 08/634, 255



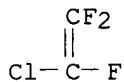
CM 10

CRN 80-62-6
CMF C5 H8 O2



CM 11

CRN 79-38-9
CMF C2 Cl F3

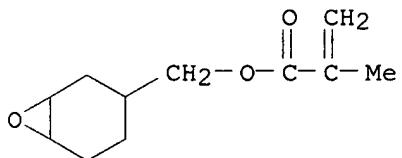


IT 82428-30-6D, polymers with vinyl-contg. siloxanes and fluorovinyl monomers 131895-81-3D, reaction products with isocyanates

RL: USES (Uses)
(dispersion stabilizers, for radical polymn. of vinyl monomers)

RN 82428-30-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester (9CI) (CA INDEX NAME)



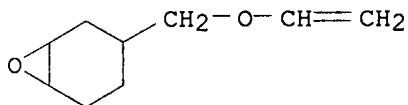
RN 131895-81-3 HCPLUS

CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene, (ethenyloxy)cyclohexane, 3-[(ethenyloxy)methyl]-7-oxabicyclo[4.1.0]heptane and [3-(ethenyloxy)propyl]trimethoxysilane (9CI) (CA INDEX NAME)

CM 1

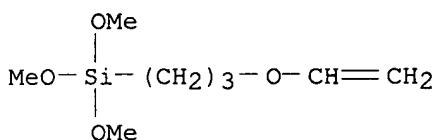
3/21/02 08/634, 255

CRN 131718-57-5
CMF C9 H14 O2



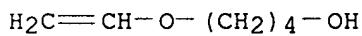
CM 2

CRN 41622-27-9
CMF C8 H18 O4 Si



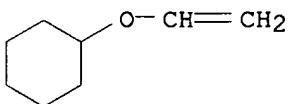
CM 3

CRN 17832-28-9
CMF C6 H12 O2



CM 4

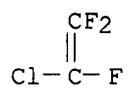
CRN 2182-55-0
CMF C8 H14 O



CM 5

CRN 79-38-9
CMF C2 Cl F3

3/21/02 08/634,255



L108 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2002 ACS
 AN 1991:166448 HCAPLUS
 DN 114:166448
 TI Curable fluoropolymer coating compositions
 IN Nakahata, Akimasa; Numa, Nobuhige; Yamane, Masahiro; Isozaki, Osamu;
 Nakai, Noboru
 PA Kansai Paint Co., Ltd., Japan
 SO Ger. Offen., 63 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C08L101-02
 ICS C08L057-04; C08L043-04; C09D201-02; C09D157-04; C09D143-04
 ICA C08J003-24; C08L083-04; C08L075-04; C08L067-02; C08L063-00; C08L029-02;
 C08L029-10
 ICI C08L101-02, C08L101-04, C08L101-06, C08L101-10; C08L057-04, C08L057-08,
 C08L057-10
 CC 42-10 (Coatings, Inks, and Related Products)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4006589	A1	19900913	DE 1990-4006589	19900302
DE 4006589	C2	19941006		
JP 02232221	A2	19900914	JP 1989-52537	19890303
JP 2787326	B2	19980813		
GB 2230267	A1	19901017	GB 1990-4110	19900223
GB 2230267	B2	19920624		
US 5166265	A	19921124	US 1990-486697	19900301
CA 2011357	AA	19900903	CA 1990-2011357	19900302
CA 2011357	C	19971209		
CA 2122985	C	19971216	CA 1990-2122985	19900302
US 5260376	A	19931109	US 1992-904257	19920625
US 5408001	A	19950418	US 1993-107580	19930818
US 5525673	A	19960611	US 1994-277429	19940718

PRAI JP 1989-52537 19890303
 US 1990-486697 19900301
 CA 1990-2011357 19900302
 US 1992-904257 19920625
 US 1993-107580 19930818
 AB Coating compns. with good storage stability giving coatings with good environmental resistance, contain alcs., epoxides, and hydrolyzable silanes, .gtoreq.1 of which is a fluoropolymer. AIBN-initiated polymn. of 4-(vinyloxy)butanol 15, cyclohexyl vinyl ether 30, Et vinyl ether 5, and C₂ClF₃ 50 parts in MIBK at 60.degree. gave a polymer (I) with no.-av. mol. wt. 5000. A mixt. of I 50, 60:20:20 p-phenylene diisocyanate-2-hydroxyethyl acrylate-3,4-epoxycyclohexanemethanol adduct (1:1:1)-styrene-Bu methacrylate copolymer 30, 20:20:60 3-[tris(dimethylaminolsilyl]propyl acrylate-styrene-Bu acrylate copolymer 20, TiO₂ 80, and Al(AcAc)₃ 1 part was coated (25 .mu.m) on primed steel and baked 30 min at 170.degree. to give a coating with gloss 90, pencil hardness H, xylene resistance (5 best, 1 worst) 5, crosscut adhesion 100/100, and impact resistance (0.5 Kg) 30 cm.

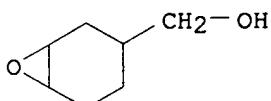
IT 767-11-3D, 7-Oxabicyclo[4.1.0]heptane-3-methanol, reaction products with functional fluoropolymers 88795-12-4
 88795-12-4D, reaction products with (trimethoxysilyl)propanethiol 131808-30-5 131808-31-6
 131808-32-7 133002-87-6

RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, with good storage stability and environmental resistance)

RN 767-11-3 HCAPLUS
 CN 7-Oxabicyclo[4.1.0]heptane-3-methanol (6CI, 7CI, 8CI, 9CI) (CA INDEX

3/21/02 08/634,255

NAME)



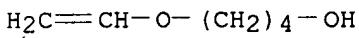
RN 88795-12-4 HCPLUS

CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene,
(ethenyloxy)cyclohexane and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9

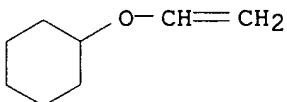
CMF C6 H12 O2



CM 2

CRN 2182-55-0

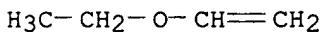
CMF C8 H14 O



CM 3

CRN 109-92-2

CMF C4 H8 O

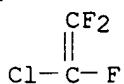


CM 4

CRN 79-38-9

CMF C2 Cl F3

3/21/02 08/634,255



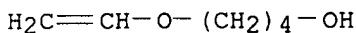
RN 88795-12-4 HCPLUS

CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene,
(ethenyloxy)cyclohexane and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9

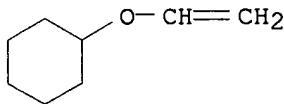
CMF C6 H12 O2



CM 2

CRN 2182-55-0

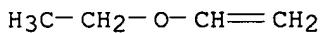
CMF C8 H14 O



CM 3

CRN 109-92-2

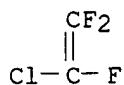
CMF C4 H8 O



CM 4

CRN 79-38-9

CMF C2 Cl F3

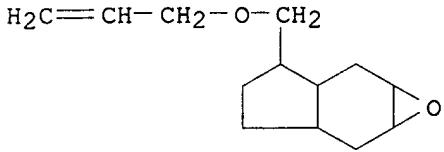


3/21/02 08/634,255

RN 131808-30-5 HCAPLUS
CN Butanoic acid, ethenyl ester, polymer with chlorotrifluoroethene, ethenyl acetate, octahydro-3-[(2-propenyloxy)methyl]-2H-indeno[5,6-b]oxirene and [3-(2-propenyloxy)propyl]silylidyne triacetate (9CI) (CA INDEX NAME)

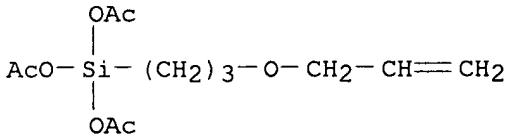
CM 1

CRN 131808-29-2
CMF C13 H20 O2



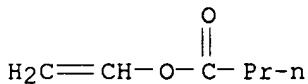
CM 2

CRN 131718-60-0
CMF C12 H20 O7 Si



CM 3

CRN 123-20-6
CMF C6 H10 O2



CM 4

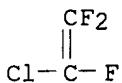
CRN 108-05-4
CMF C4 H6 O2



3/21/02 08/634,255

CM 5

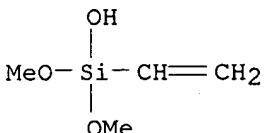
CRN 79-38-9
CMF C2 Cl F3



RN 131808-31-6 HCAPLUS
CN Silanol, ethenyldimethoxy-, polymer with chlorotrifluoroethene,
(ethenyloxy)cyclohexane, ethoxyethene and tetrafluoroethene (9CI) (CA
INDEX NAME)

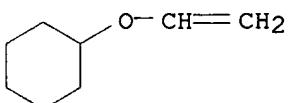
CM 1

CRN 131718-55-3
CMF C4 H10 O3 Si



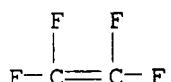
CM 2

CRN 2182-55-0
CMF C8 H14 O



CM 3

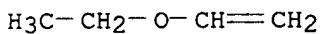
CRN 116-14-3
CMF C2 F4



3/21/02 08/634,255

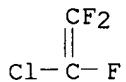
CM 4

CRN 109-92-2
CMF C4 H8 O



CM 5

CRN 79-38-9
CMF C2 Cl F3

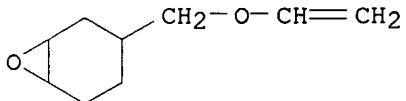


RN 131808-32-7 HCPLUS

CN 7-Oxabicyclo[4.1.0]heptane, 2-[(ethenyloxy)methyl]-, polymer with chlorotrifluoroethylene and (ethenyloxy)cyclohexane (9CI) (CA INDEX NAME)

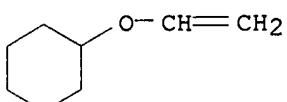
CM 1

CRN 131718-57-5
CMF C9 H14 O2



CM 2

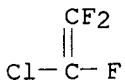
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CMF C8 H14 O



3/21/02 08/634,255

CM 3

CRN 79-38-9
CMF C2 Cl F3

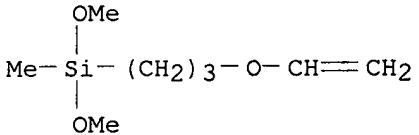


RN 133002-87-6 HCAPLUS

CN Butanoic acid, ethenyl ester, polymer with chlorotrifluoroethene,
(ethenyloxy)cyclohexane, [3-(ethenyloxy)propyl]dimethoxymethylsilane and
2-(2-propenyl)ethanol (9CI) (CA INDEX NAME)

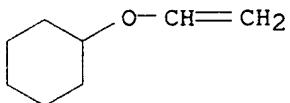
CM 1

CRN 133002-86-5
CMF C8 H18 O3 Si



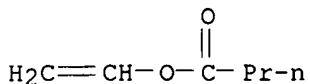
CM 2

CRN 2182-55-0
CMF C8 H14 O



CM 3

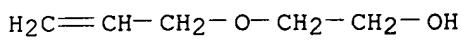
CRN 123-20-6
CMF C6 H10 O2



3/21/02 08/634,255

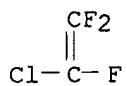
CM 4

CRN 111-45-5
CMF C5 H10 O2



CM 5

CRN 79-38-9
CMF C2 Cl F3



3/21/02 08/634,255

Cited by EPO

L12 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2002 ACS
AN 1973:419650 HCAPLUS
DN 79:19650
TI Curable fluorinated polyols
IN Griffith, James R.
PA United States Dept. of the Navy
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3720639	A	19730313	US 1971-156492	19710624 <--
PRAI US 1970-13172		19700220		

AB A fluorinated diglycidyl ether was treated with a fluorinated diol to give a curable polyol; the product was useful in coatings, adhesives, and moldings. Thus, a 1:1 stoichiometric mixt. of octafluorobiphenyl 4,4'-diglycidyl ether [23779-39-7] and 4,4'-dihydroxyoctafluorobiphenyl [2200-70-6] was heated 2 hr at 100.deg., 5 hr at 120.deg., and 24 hr at 165.deg. to give a light amber, solid polyol with epoxy equiv. wt. 4000 and sol. in acetone; 8 addnl. polyols from 4 addnl. diglycidyl ethers and 3 addnl. diols were prep'd.

IT 29934-09-6P 29934-10-9P 31257-80-4P
42263-55-8P 42263-56-9P 42263-57-0P

42263-58-1P

RL: PREP (Preparation)
(prepn. of)

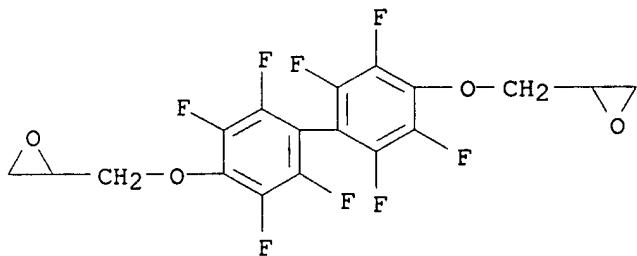
RN 29934-09-6 HCAPLUS

CN 1,5-Pentanediol, 2,2,3,3,4,4-hexafluoro-, polymer with
2,2'-(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-
diyl)bis(oxymethylene)bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 23779-39-7

CMF C18 H10 F8 O4



CM 2

CRN 376-90-9

CMF C5 H6 F6 O2

HO-CH₂-(CF₂)₃-CH₂-OH

RN 29934-10-9 HCAPLUS

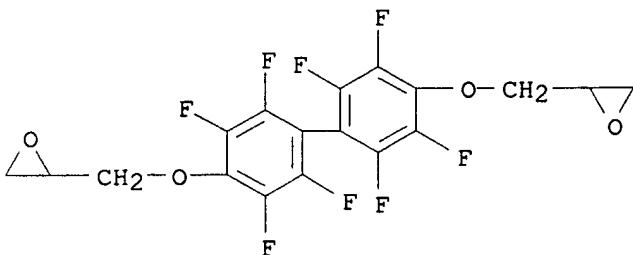
CN [1,1'-Biphenyl]-4,4'-diol, 2,2',3,3',5,5',6,6'-octafluoro-, polymer with

3/21/02 08/634,255

2,2'-(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)bis(oxymethylene)bis[oxirane] (9CI) (CA INDEX NAME)

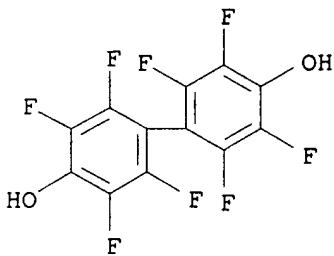
CM 1

CRN 23779-39-7
CMF C18 H10 F8 O4



CM 2

CRN 2200-70-6
CMF C12 H2 F8 O2

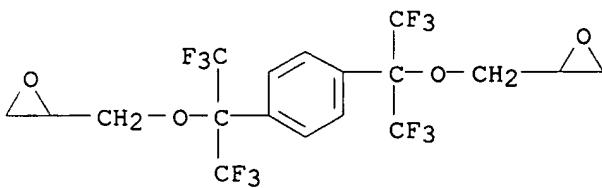


RN 31257-80-4 HCAPLUS

CN 1,5-Pantanediol, 2,2,3,3,4,4-hexafluoro-, polymer with
2,2'-(1,4-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene])bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 26146-94-1
CMF C18 H14 F12 O4

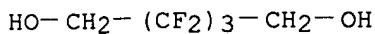


CM 2

CRN 376-90-9

3/21/02 08/634,255

CMF C5 H6 F6 O2



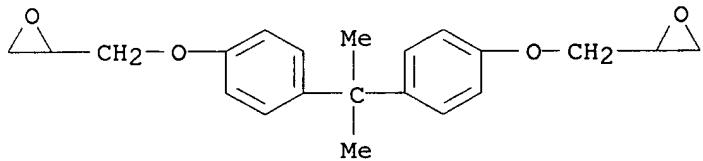
RN 42263-55-8 HCPLUS

CN 1,5-Pantanediol, 2,2,3,3,4,4-hexafluoro-, polymer with
2,2'—[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]
(9CI) (CA INDEX NAME)

CM 1

CRN 1675-54-3

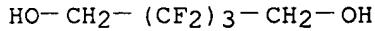
CMF C21 H24 O4



CM 2

CRN 376-90-9

CMF C5 H6 F6 O2



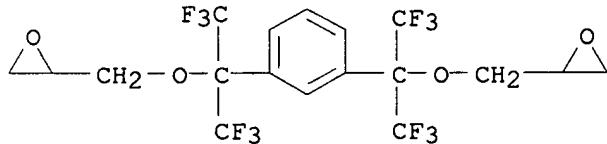
RN 42263-56-9 HCPLUS

CN 1,3-Benzenedimethanol, .alpha.,.alpha.,.alpha.',.alpha.'-
tetrakis(trifluoromethyl)-, polymer with 2,2'—[1,3-phenylenebis[[2,2,2-
trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis[oxirane] (9CI)
(CA INDEX NAME)

CM 1

CRN 26146-93-0

CMF C18 H14 F12 O4

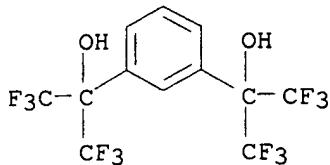


CM 2

CRN 802-93-7

CMF C12 H6 F12 O2

3/21/02 08/634,255



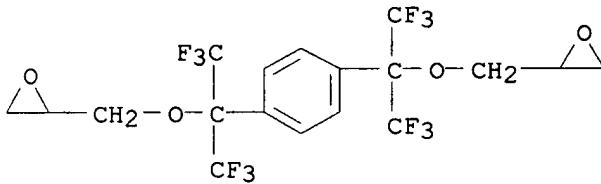
RN 42263-57-0 HCAPLUS

CN 1,4-Benzenedimethanol, .alpha.,.alpha.,.alpha.',.alpha.'-tetrakis(trifluoromethyl)-, polymer with 2,2'-[1,4-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 26146-94-1

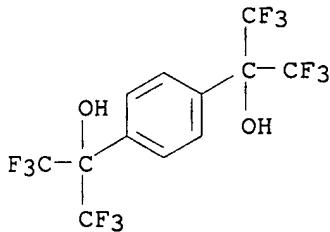
CMF C18 H14 F12 O4



CM 2

CRN 1992-15-0

CMF C12 H6 F12 O2



RN 42263-58-1 HCAPLUS

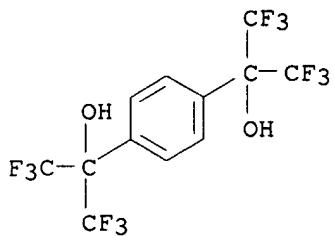
CN 1,4-Benzenedimethanol, .alpha.,.alpha.,.alpha.',.alpha.'-tetrakis(trifluoromethyl)-, polymer with 2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 1992-15-0

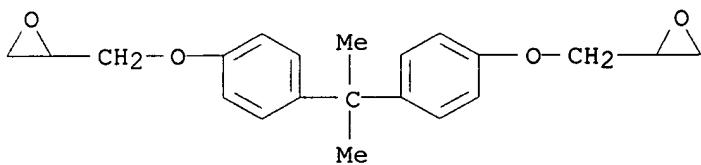
CMF C12 H6 F12 O2

3/21/02 08/634, 255



CM 2

CRN 1675-54-3
CMF C21 H24 O4



3/21/02 08/634,255

Cited by EPO

L12 ANSWER 3 OF 6 HCPLUS COPYRIGHT 2002 ACS
AN 1988:151587 HCPLUS

DN 108:151587

TI Crosslinking of epoxy resins by polyfunctional perfluoro polyethers

IN Re, Alberto; Donati, Gianni

PA Ausimont S.p.A., Italy

SO Eur. Pat. Appl., 11 pp.

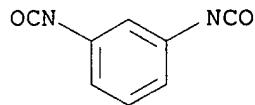
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 249048	A2	19871216	EP 1987-107024	19870514
	EP 249048	A3	19900620		
	EP 249048	B1	19921014		
	R: AT, BE, DE, ES, FR, GB, IT, NL, SE				
	ZA 8703313	A	19871230	ZA 1987-3313	19870508
	US 4816545	A	19890328	US 1987-47108	19870508 <--
	JP 63022823	A2	19880130	JP 1987-113732	19870512
	CN 87104186	A	19880406	CN 1987-104186	19870513
	CN 1016431	B	19920429		
	SU 1660584	A3	19910630	SU 1987-4202604	19870513
	AT 81516	E	19921015	AT 1987-107024	19870514
PRAI	IT 1986-20434		19860514		
	EP 1987-107024		19870514		
AB	F-free epoxy resins are cured by perfluoro polyethers contg. groups reactive with epoxy groups to give resins which exhibit water and oil repellency, low friction coeff., and good dielec. properties. A mixt. of 100 g Epikote 828 and 81.1 g RCH ₂ O(C ₂ F ₄₀) _m (CF ₂ O) _n CH ₂ R (R = p-aminophenoxy; mol. wt. 624) contg. a catalyst (Dabco) was cured 2 h at 70.degree. and 4 h at 150.degree. to give a resin having water contact angle 88.degree., dielec. const. 3.2, vol. resistivity 8 .times. 10 ¹⁵ .OMEGA.-cm, and water absorption 0.1% (96 h at 70.degree. and 100% relative humidity).				
IT	26471-62-5D, TDI, perfluoro polyether derivs.				
	RL: USES (Uses)				
	(curing by, of epoxy resins)				
RN	26471-62-5 HCPLUS				
CN	Benzene, 1,3-diisocyanatomethyl- (9CI) (CA INDEX NAME)				



D1-Me

IT 85-42-7, Hexahydropthalic anhydride

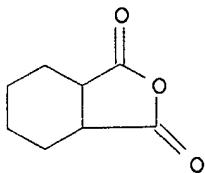
RL: USES (Uses)

(curing of epoxy resins by fluoro polyether deriv. and)

RN 85-42-7 HCPLUS

CN 1,3-Isobenzofurandione, hexahydro- (9CI) (CA INDEX NAME)

3/21/02 08/634,255



IT 25068-38-6, Epikote 828

RL: USES (Uses)

(curing of, by fluoro polyether derivs.)

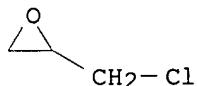
RN 25068-38-6 HCPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8

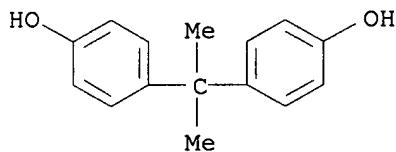
CMF C3 H5 Cl O



CM 2

CRN 80-05-7

CMF C15 H16 O2

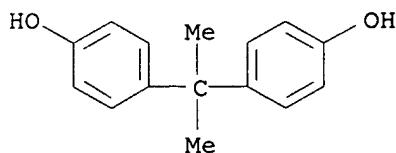


IT 80-05-7DP, polymers with epichlorohydrin and fluoro polyether derivs. 106-89-8DP, polymers with bisphenol A and fluoro polyether derivs.

RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PREP (Preparation); PROC (Process)
(prepn. and properties of)

RN 80-05-7 HCPLUS

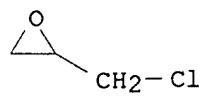
CN Phenol, 4,4'-(1-methylethylidene)bis- (9CI) (CA INDEX NAME)



RN 106-89-8 HCPLUS

CN Oxirane, (chloromethyl)- (9CI) (CA INDEX NAME)

3/21/02 08/634,255



3/21/02 08/634,255

Cited by EPO

L12 ANSWER 4 OF 6 HCPLUS COPYRIGHT 2002 ACS

AN 1988:7572 HCPLUS

DN 108:7572

TI Fluorinated epoxy-fluorocarbon coating compositions

PA Standard Oil Co. (Ohio), USA

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62148574	A2	19870702	JP 1986-290290	19861205
	EP 230112	A2	19870729	EP 1986-309297	19861128 <--
	EP 230112	A3	19871125		
	EP 230112	B1	19900502		
	R: DE, FR, GB				
	AU 8666430	A1	19870625	AU 1986-66430	19861211
	BR 8606274	A	19871006	BR 1986-6274	19861218
	CN 86108642	A	19870722	CN 1986-108642	19861222
	US 5075378	A	19911224	US 1987-65750	19870624

PRAI US 1985-812222 19851223

AB The title solid compns. forming anticorrosive hydrophobic coatings with excellent impact resistance comprise fluorocarbon polymer 5-24, epoxy resin 25-95, and fluorinated hardener 10-70%. Thus, a mixt. of 57.0 g Epon 828 and 0.3 g Florad FC-430 was rapidly mixed with 31.7 g 2,2,3,3,4,4-hexafluoro-1,5-pentanediol for 15 min and then with 10 g PTFE powder for 15-30 min, mixed with 1% Me2NH, coated on a steel plate at 90.degree., and cured at 125.degree., and the process was repeated 4 times to obtain a 0.1775 mm coating.

IT 111843-25-5

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, solid, contg. PTFE, anticorrosive, impact-resistant,
hydrophobic)

RN 111843-25-5 HCPLUS

CN 1,5-Pentanediol, 2,2,3,3,4,4-hexafluoro-, polymer with
(chloromethyl)oxirane and 4,4'-(1-methylethyldene)bis[phenol] (9CI) (CA
INDEX NAME)

CM 1

CRN 376-90-9

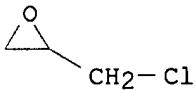
CMF C5 H6 F6 O2

HO—CH₂—(CF₂)₃—CH₂—OH

CM 2

CRN 106-89-8

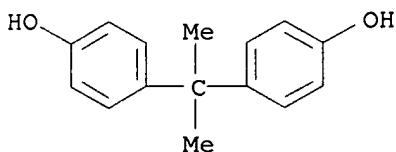
CMF C3 H5 Cl O



CM 3

3/21/02 08/634,255

CRN 80-05-7
CMF C15 H16 O2



IT 9002-84-0, PTFE

RL: USES (Uses)

(fluorinated epoxy coating materials contg. DLX 6000, solid,
anticorrosive, impact-resistant, hydrophobic)

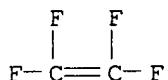
RN 9002-84-0 HCPLUS

CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

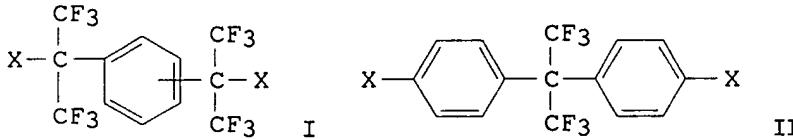
CRN 116-14-3

CMF C2 F4

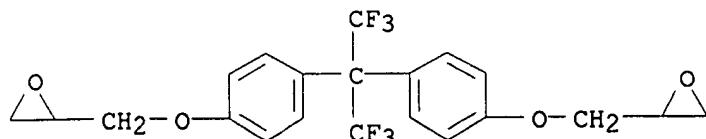


L98 ANSWER 11 OF 13 HCPLUS COPYRIGHT 2002 ACS
 AN 1991:418674 HCPLUS
 DN 115:18674
 TI Derivatives of 1,3- or 1,4-bis(hexafluoroisopropyl)benzene, or
 2,2-bisphenylhexafluoropropane, ink-repellent agent containing
 such deriv. compound, head for ink-jet
 recording treated with such ink-repellent agent and ink
 jet recording device equipped with such head
 IN Ebisawa, Isao; Noguchi, Hiromichi
 PA Canon K. K., Japan
 SO Eur. Pat. Appl., 26 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C07D303-27
 ICS C07C069-653; C07C069-76; B41J003-00
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 25, 42
 FAN.CNT 1

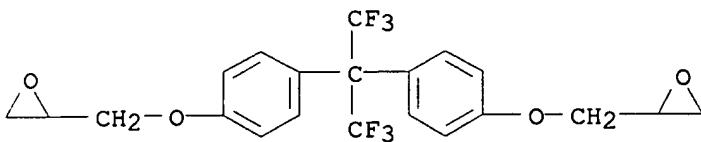
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 388979	A2	19900926	EP 1990-105574	19900323
	EP 388979	A3	19910206		
	JP 03007781	A2	19910114	JP 1990-62842	19900315
	JP 11286114	A2	19991019	JP 1999-9512	19990118
	JP 3217761	B2	20011015		
PRAI	JP 1989-70548	A	19890324		
	JP 1990-62842	A	19900315		
OS	MARPAT	115:18674			
GI					



AB The title derivs. are I, or II [X = epoxy group or
 $\text{CH}_2:\text{C}(\text{Y})\text{CO}_2(\text{CH}_2\text{CHOHCH}_2\text{O})^m(\text{CO})^n$; Y = H, Me; m, n = 0 or 1, when m = 0, n is
 also 0]. The derivs. are used as ink-repellent agent or
 ink-jet printing head in recording app.
 IT 2994-63-0 69709-05-3 108050-41-5
 108050-42-6 109033-14-9 113962-81-5
 122715-22-4 122715-23-5 134426-39-4
 RL: USES (Uses)
 (ink repellent, on ink-jet printing head)
 RN 2994-63-0 HCPLUS
 CN Oxirane, 2,2'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis(4,1-phenyleneoxymethylene)bis- (9CI) (CA INDEX NAME)



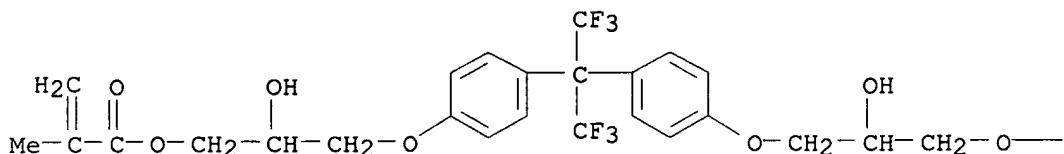
3/21/02 08/634,255



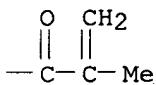
RN 69709-05-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A

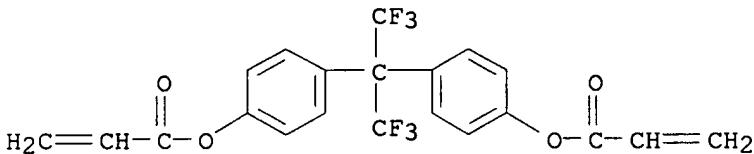


PAGE 1-B



RN 108050-41-5 HCAPLUS

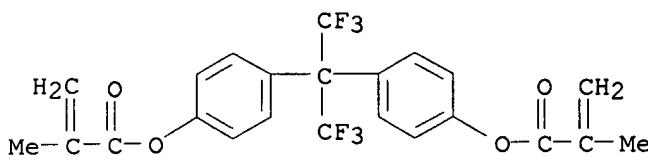
CN 2-Propenoic acid, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene ester (9CI) (CA INDEX NAME)



RN 108050-42-6 HCAPLUS

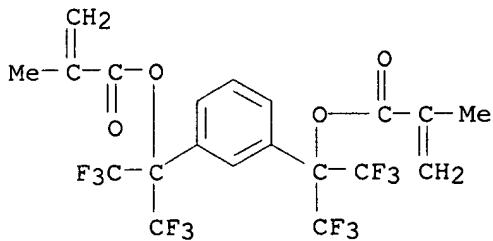
CN 2-Propenoic acid, 2-methyl-, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene ester (9CI) (CA INDEX NAME)

3/21/02 08/634,255



RN 109033-14-9 HCAPLUS

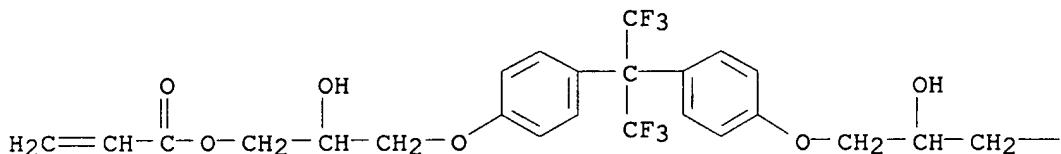
CN 2-Propenoic acid, 2-methyl-, 1,3-phenylenebis[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] ester (9CI) (CA INDEX NAME)



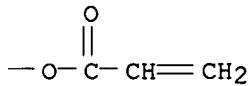
RN 113962-81-5 HCAPLUS

CN 2-Propenoic acid, [2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

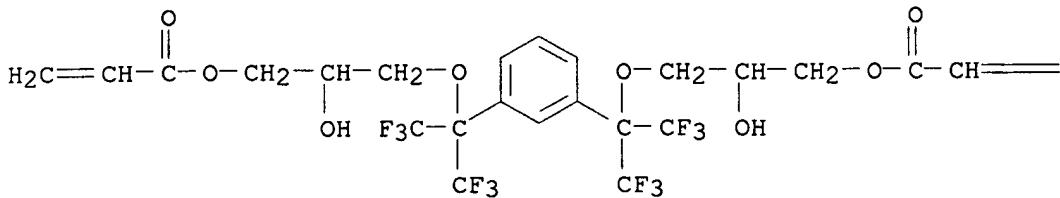


RN 122715-22-4 HCAPLUS

CN 2-Propenoic acid, 1,3-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxy(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

3/21/02 08/634,255

PAGE 1-A

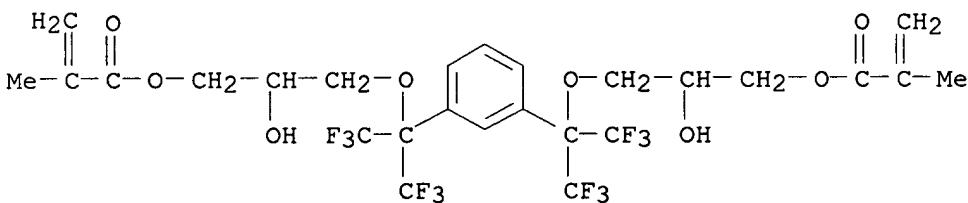


PAGE 1-B

$=\text{CH}_2$

RN 122715-23-5 HCPLUS

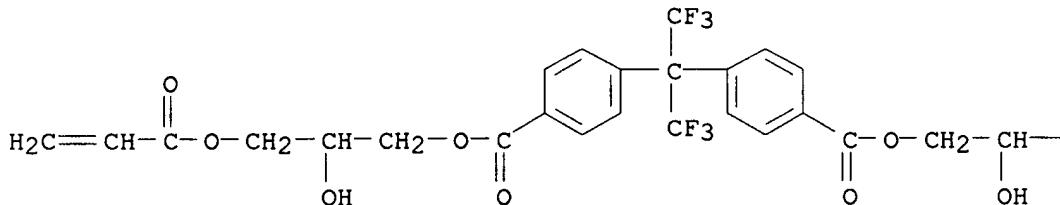
CN 2-Propenoic acid, 2-methyl-, 1,3-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxy(2-hydroxy-3,1-propanediyl)] ester (9CI)
(CA INDEX NAME)

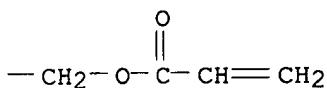


RN 134426-39-4 HCPLUS

CN Benzoic acid, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-[2-hydroxy-3-[(1-oxo-2-propenyl)oxy]propyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



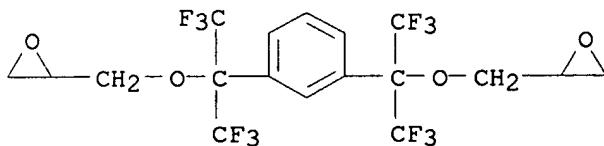


IT 26146-93-0P 77974-91-5P 134426-38-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and use of, as ink-repellent, on **ink-jet**
 printing head)

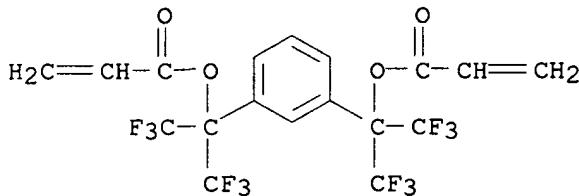
RN 26146-93-0 HCPLUS

CN Oxirane, 2,2'-[1,3-phenylenebis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis- (9CI) (CA INDEX NAME)



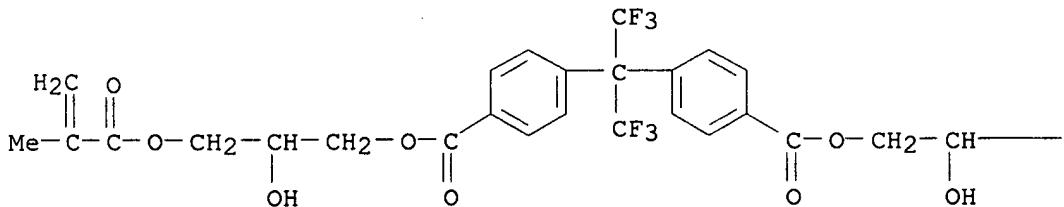
RN 77974-91-5 HCPLUS

CN 2-Propenoic acid, 1,3-phenylenebis[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene] ester (9CI) (CA INDEX NAME)



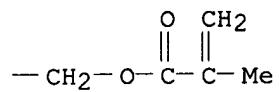
RN 134426-38-3 HCPLUS

CN Benzoic acid, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, bis[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl] ester (9CI) (CA INDEX NAME)



3/21/02 08/634,255

PAGE 1-B



3/21/02 08/634,255

L93 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1987:524699 HCAPLUS

DN 107:124699

TI Process for producing a liquid jet recording head

IN Noguchi, Hiromichi

PA Canon K. K. , Japan

SO U.S., 11 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4657631	A	19870414	US 1985-811460	19851220
	US 4775445	A	19881004	US 1987-1174	19870107
PRAI	JP 1984-274689		19841228		
	US 1985-811460		19851220		

AB A liq. jet recording **head** comprised of a liq. **flow path**, a liq. ejection port, and a liq. ejection energy-generating member arranged along the liq. **flow path** is comprised of forming a solid layer comprised of pos. photoresist on a substrate in accordance with the pattern of the liq. **flow path**, filling up the recess on the substrate where the solid layer is not present with a liq. **flow path** wall-forming material, and removing the solid layer from the substrate. The recording **head** thus produced is inexpensive, precise, highly reliable, and excellent in mech. strength and chem. resistance. A pos. photoresist layer (OZATEC R225) was formed on a glass substrate provided with electrothermal transducers as liq. ejecting energy-generating members, exposed through a photomask to UV, developed with an aq. caustic soda soln., sputtered with a Cr wall layer, electrolytically plated with a Ni wall layer, and treated with an EtOH-dodecylbenzenesulfonic acid mixt. to remove the resist layer to give a liq. jet recording **head**.

IT 57835-99-1

RL: USES (Uses)

(curable resin compns. contg. **epoxy resins** and, for photofabrication of **ink-jet** recording **heads** using pos. photoresist)

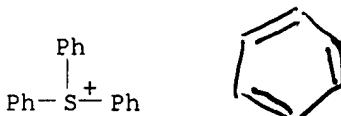
RN 57835-99-1 HCAPLUS

CN Sulfonium, triphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S



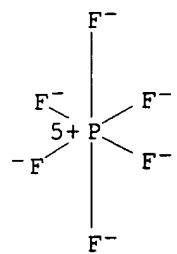
CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

3/21/02 08/634,255



IT 95078-13-0

RL: USES (Uses)

(curable resin compns. contg., for photofabrication of **ink-jet** recording **heads** using pos. photoresist)

RN 95078-13-0 HCPLUS

L98 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2002 ACS
 AN 1987:524699 HCAPLUS
 DN 107:124699
 TI Process for producing a liquid jet recording **head**
 IN Noguchi, Hiromichi
 PA Canon K. K. , Japan
 SO U.S., 11 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM B44C001-22
 ICS B29C017-08; C03C015-00; C03C025-06
 NCL 156655000
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4657631	A	19870414	US 1985-811460	19851220
	US 4775445	A	19881004	US 1987-1174	19870107
PRAI	JP 1984-274689		19841228		
	US 1985-811460		19851220		

AB A liq. jet recording **head** comprised of a liq. **flow path**, a liq. ejection port, and a liq. ejection energy-generating member arranged along the liq. **flow path** is comprised of forming a solid layer comprised of pos. photoresist on a substrate in accordance with the pattern of the liq. **flow path**, filling up the recess on the substrate where the solid layer is not present with a liq. **flow path** wall-forming material, and removing the solid layer from the substrate. The recording **head** thus produced is inexpensive, precise, highly reliable, and excellent in mech. strength and chem. resistance. A pos. photoresist layer (OZATEC R225) was formed on a glass substrate provided with electrothermal transducers as liq. ejecting energy-generating members, exposed through a photomask to UV, developed with an aq. caustic soda soln., sputtered with a Cr wall layer, electrolytically plated with a Ni wall layer, and treated with an EtOH-dodecylbenzenesulfonic acid mixt. to remove the resist layer to give a liq. jet recording **head**.

ST ink jet recording **head** prepns; photosensitive resin ink jet **head**; pos photoresist

ink jet **head**

IT Printing apparatus

(ink-jet, heads, photofabrication of,
using pos. photoresists)

IT 57835-99-1

RL: USES (Uses)
(curable resin compns. contg. **epoxy resins**
and, for photofabrication of **ink-jet** recording
heads using pos. photoresist)

IT 37189-54-1 39701-29-6 80940-81-4, Acrysirup SY-105 95078-13-0
95078-16-3 110158-77-5

RL: USES (Uses)
(curable resin compns. contg., for photofabrication of
ink-jet recording **heads** using pos.
photoresist)

IT 110158-67-3

RL: USES (Uses)
(in photofabrication of **ink-jet** recording
heads)

IT 7440-02-0, Nickel, uses and miscellaneous

RL: USES (Uses)
(**ink-jet** recording **heads** with walls of

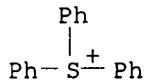
3/21/02 08/634,255

chromium and, photofabrication of, using pos. photoresist)
IT 7440-47-3, Chromium, uses and miscellaneous
RL: USES (Uses)
(ink-jet recording heads with walls of
nickel and, photofabrication of, using pos. photoresist)
IT 9003-09-2, Poly(methyl vinyl ether) 9003-32-1, Poly(ethyl acrylate)
RL: USES (Uses)
(pos. photoresist contg. trihydroxybenzophenone
naphthoquinonediazidosulfonate and, in photofabrication of ink
-jet recording heads)
IT 107853-40-7
RL: USES (Uses)
(pos. photoresist from cresol-formaldehyde copolymer and, in
photofabrication of ink-jet recording heads
)
IT 9016-83-5
RL: USES (Uses)
(pos. photoresist from trihydroxybenzophenone
naphthoquinonediazidosulfonate and, in photofabrication of ink
-jet recording heads)
IT 57835-99-1
RL: USES (Uses)
(curable resin compns. contg. epoxy resins
and, for photofabrication of ink-jet recording
heads using pos. photoresist)
RN 57835-99-1 HCAPLUS
CN Sulfonium, triphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

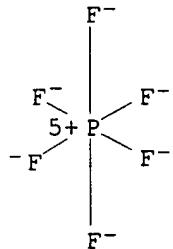


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



3/21/02 08/634,255

IT 95078-13-0

RL: USES (Uses)

(curable resin compns. contg., for photofabrication of
ink-jet recording **heads** using pos.
photoresist)

RN 95078-13-0 HCPLUS

L75 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2002 ACS
 AN 1989:479484 HCAPLUS
 DN 111:79484
 TI Fluorine-containing alicyclic and aromatic cyclic compounds, process, and adhesive composition containing the compounds
 IN Maruno, Tohru; Nakamura, Kozaburo; Murata, Norio; Omori, Akira; Shimizu, Yoshiki; Kubo, Motonobu; Kobayashi, Hideo
 PA Daikin Industries, Ltd., Japan; Nippon Telegraph and Telephone K. K.
 SO Eur. Pat. Appl., 31 pp.
 CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 295639	A2	19881221	EP 1988-109495	19880614
	EP 295639	A3	19891102		
	EP 295639	B1	19931201		
	R: DE, FR, GB, IT, NL				
	JP 01085949	A2	19890330	JP 1988-146243	19880614
	JP 08030028	B4	19960327		
	US 5157148	A	19921020	US 1990-587131	19901018
	US 5202360	A	19930413	US 1991-737577	19910729

PRAI JP 1987-149784 19870615
 JP 1987-308556 19871208
 US 1988-205853 19880613
 US 1990-586846 19901018

AB Heat- and water-resistant adhesive compns. with low refractive index, useful for optical parts, comprise epoxides RCH₂O[C(CF₃)₂MC(CF₃)₂OCH₂CH(OH)CH₂O]_nC(CF₃)₂MC(CF₃)₂OCH₂R (I; R = glycidyl; M = divalent group of .gtoreq.1 alicyclic or arom. hydrocarbon, may be linked with O, S, CH₂, or may form a condensed ring; n = 0 or pos. no.) or epoxy acrylates I (R = CH₂:CYCO₂CH₂CH(OH)-, M and n are as above, Y = H or Me) and photopolymn. initiator or curing agent. The reaction of 4 mol hexafluoroacetone with 2 mol Ph₂O at 40-50.degree. in the presence of AlCl₃ gave a diol (b.p. 144-146.degree.) which was further reacted with epichlorohydrin to give the corresponding diglycidyl ether compd. I (R = glycidyl; M = p-C₆H₄O-p-C₆H₄), (II). A compn. contg. II (n = 0.2) (epoxy equiv. 360, refractive index 1.47) 70, HCF₂CF₂CH₂OR₁ (R₁ = glycidyl) 30, and hexafluorophosphate triphenylsulfonium 3 parts was cured at 60.degree. using 100 mJ/cm² UV light to give a cured product with refractive index 1.494, adhesion (to glass at 23.degree.) 147 kg/cm², and heat resistance (time of sepn. of adhesive from glass in 80.degree. water) >24 h, vs. 1.564, 110, and >24, resp., for amine-cured Epikote 828.

IT 122106-58-5 122108-53-6

RL: USES (Uses)

(adhesive, with low refractive index, heat-resistant with good adhesion to glass)

RN 122106-58-5 HCAPLUS

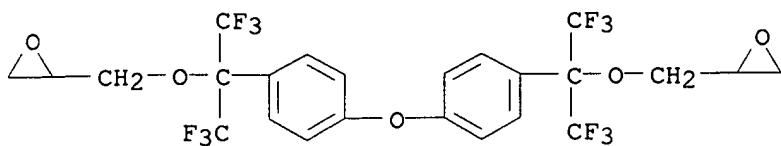
CN Oxirane, 2,2'-[oxybis[4,1-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis-, polymer with [(2,2,3,3-tetrafluoropropoxy)methyl]oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 121771-44-6

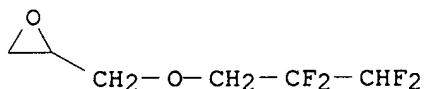
CMF C24 H18 F12 O5

3/21/02 08/634,255



CM 2

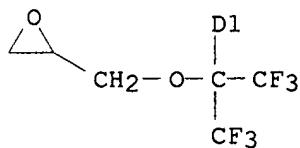
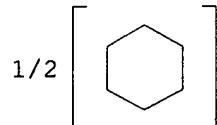
CRN 19932-26-4
CMF C6 H8 F4 O2



RN 122108-53-6 HCAPLUS
CN Oxirane, 2,2'-[cyclohexanediylbis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis-, polymer with [(2,2,3,3-tetrafluoropropoxy)methyl]oxirane and 2,2'-[[(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]] (9CI) (CA INDEX NAME)

CM 1

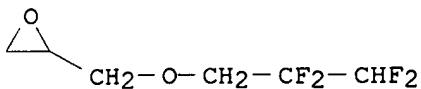
CRN 121752-11-2
CMF C18 H20 F12 O4
CCI IDS
CDES 8:ID



CM 2

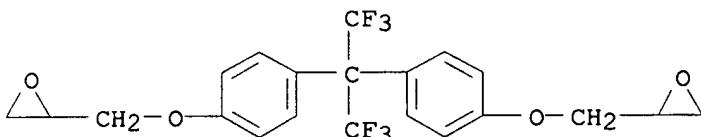
CRN 19932-26-4
CMF C6 H8 F4 O2

3/21/02 08/634,255



CM 3

CRN 2994-63-0
CMF C21 H18 F6 O4

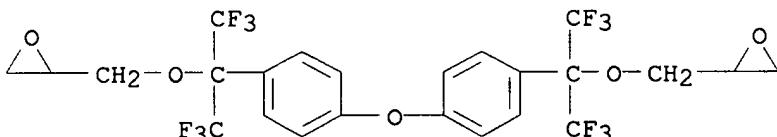


IT 121771-44-6P 122085-48-7P 122085-49-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with acrylic acid or methacrylic
acid)

RN 121771-44-6 HCPLUS

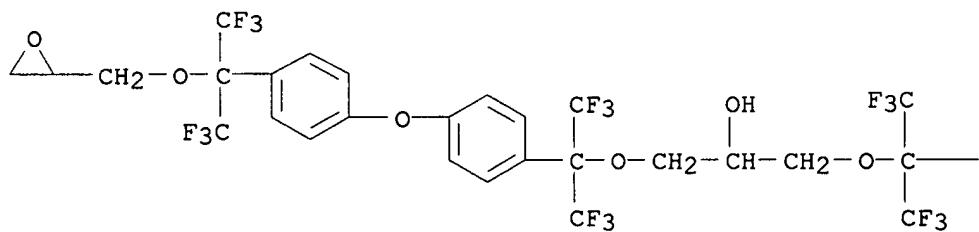
CN Oxirane, 2,2'-(oxybis[4,1-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis- (9CI) (CA INDEX NAME)



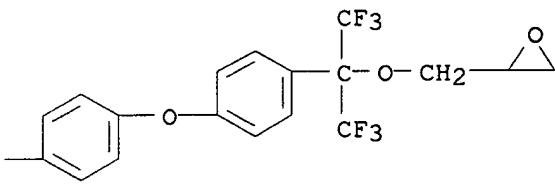
RN 122085-48-7 HCPLUS

CN 2-Propanol, 1,3-bis[2,2,2-trifluoro-1-[4-[4-[2,2,2-trifluoro-1-(oxiranylmethoxy)-1-(trifluoromethyl)ethyl]phenoxy]phenyl]-1-(trifluoromethyl)ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



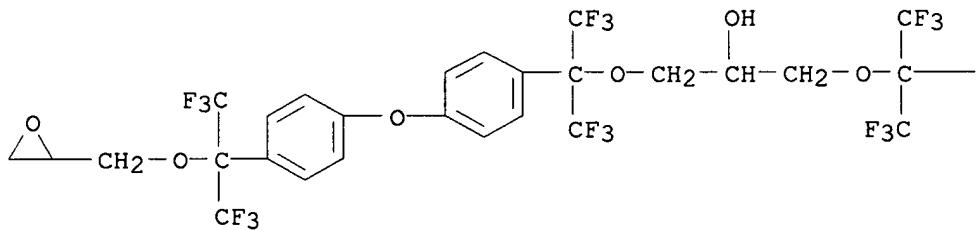
PAGE 1-B



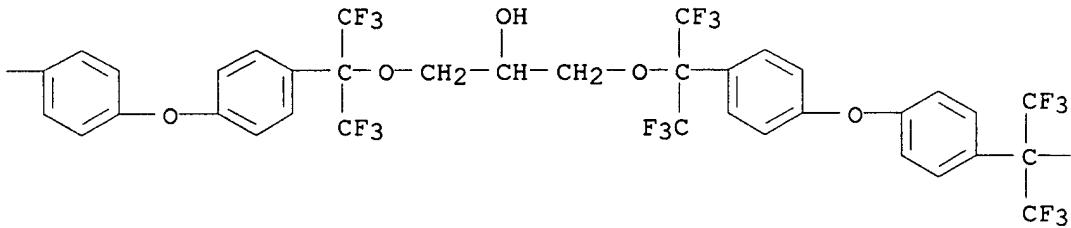
RN 122085-49-8 HCAPLUS

CN 2-Propanol, 1,1'-[oxybis[4,1-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxy]]bis[3-[2,2,2-trifluoro-1-[4-[4-[2,2,2-trifluoro-1-(oxiranylmethoxy)-1-(trifluoromethyl)ethyl]phenoxy]phenyl]-1-(trifluoromethyl)ethoxy]- (9CI) (CA INDEX NAME)

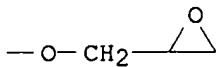
PAGE 1-A



PAGE 1-B



PAGE 1-C



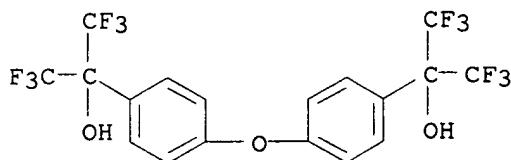
3/21/02 08/634,255

IT 2093-04-1P 122085-42-1P 122085-43-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with epichlorohydrin)

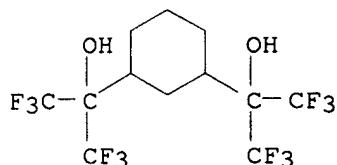
RN 2093-04-1 HCPLUS

CN Benzenemethanol, 4,4'-oxybis[.alpha.,.alpha.-bis(trifluoromethyl)- (9CI)
(CA INDEX NAME)



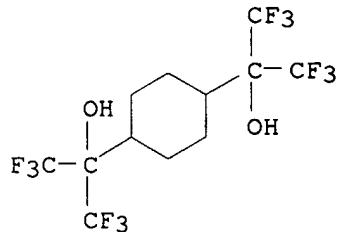
RN 122085-42-1 HCPLUS

CN 1,3-Cyclohexanedimethanol, .alpha.,.alpha.,.alpha.',.alpha.'-
tetrakis(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 122085-43-2 HCPLUS

CN 1,4-Cyclohexanedimethanol, .alpha.,.alpha.,.alpha.',.alpha.'-
tetrakis(trifluoromethyl)- (9CI) (CA INDEX NAME)

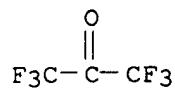


IT 684-16-2, Hexafluoroacetone

RL: RCT (Reactant)
(reaction of, with benzene)

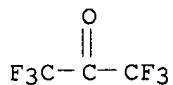
RN 684-16-2 HCPLUS

CN 2-Propanone, 1,1,1,3,3,3-hexafluoro- (8CI, 9CI) (CA INDEX NAME)



3/21/02 08/634,255

L75 ANSWER 39 OF 42 HCPLUS COPYRIGHT 2002 ACS
AN 1976:151392 HCPLUS
DN 84:151392
TI A fluoro-anhydride curing agent for heavily
fluorinated **epoxy resins**
AU Griffith, James R.; O'Rear, Jacques G.; Reardon, Joseph P.
CS Nav. Res. Lab., Washington, D. C., USA
SO Polym. Sci. Technol. (1975), 9A(Adhes. Sci. Technol.), 429-35
CODEN: POSTB5
DT Journal
LA English
AB The anhydride 4-(2-hydroxy-2-hexafluoropropyl)phthalic anhydride (I)
[58851-14-2], prep'd. from o-xylene [95-47-6] and hexafluoroacetone
[684-16-2], is a suitable **crosslinking** agent for fluorinated
epoxy resins.
IT 684-16-2
RL: RCT (Reactant)
(reaction of, with xylene)
RN 684-16-2 HCPLUS
CN 2-Propanone, 1,1,1,3,3,3-hexafluoro- (8CI, 9CI) (CA INDEX NAME)



L75 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2002 ACS
AN 1984:157517 HCAPLUS
DN 100:157517
TI Syntheses and properties of **cured epoxy resins**
containing the **perfluorobutenyloxy** group. I. **Epoxy**
resin cured with perfluorobutenyloxyphthalic anhydride
AU Sasaki, S.; Nakamura, K.
CS Musashino Electr. Commun. Lab., Nippon Telegr. Teleph. Public Corp.,
Musashino, 180, Japan
SO J. Polym. Sci., Polym. Chem. Ed. (1984), 22(3), 831-40
CODEN: JPLCAT; ISSN: 0449-296X
DT Journal
LA English
AB 4-[Perfluoro-1,3-dimethyl-2-(1-methylethyl)-1-butenyl]oxyphthalic
anhydride (I) [80693-44-3] was prep'd. as a new **curing**
agent for epoxy resins, and the properties of
I-cured epoxy resins were investigated. I
was prep'd. in good yield by dehydrating ring closure of
perfluorobutenyloxyphthalic acid, which was obtained by
reacting hexafluoropropene trimers with 4-hydroxyphthalic acid.
Epoxy resins cured with I have boiling water
absorption 0.45%, excellent heat resistance, and crit. surface tension
approx. the same as for PTFE.

3/21/02 08/634,255

L108 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2002 ACS
AN 1983:524202 HCAPLUS
DN 99:124202
TI Radiation curable epoxy/acrylate-hydroxyl coating compositions

IN Nagy, Frank Andrew
PA Mobil Oil Corp. , USA
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW

DT Patent
LA English

IC C09D003-58; C09D003-80; C08F283-10

CC 42-9 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 82603	A2	19830629	EP 1982-306283	19821125
	EP 82603	A3	19850123		
	R: BE, DE, FR, GB, IT, NL				
	JP 58111863	A2	19830704	JP 1982-224792	19821221

PRAI US 1981-333367 19811222

AB Mixts. of **epoxy resins** and (meth)acrylic monomers can be **cured** by UV or ionizing radiation in the presence of Group VIA onium salts when the (meth)acrylic monomers also contain OH functionality. Thus, a compn. contg. FC-508 (triphenylsulfonium hexafluorophosphate) [57835-99-1] catalyst 5, Epon 828 [25068-38-6] **epoxy resin** 48, Epon 828 etherified stoichiometrically with hydroxyethyl acrylate 23.3, and hydroxyethyl acrylate-propylene oxide adduct [60857-97-8] 23.3% was applied to an Al substrate, **cured** by exposure to UV light, and baked for 5 min at 175.degree.. The compn. **cured** well as both thick and thin films, whereas without the OH-functional monomer the **cure** of thick films was poor.

T 57835-99-1

RL: CAT (Catalyst use); USES (Uses)
(catalysts, radiation-curable epoxy
resin coating compns. contg.)

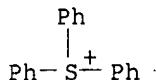
RN 57835-99-1 HCAPLUS

CN Sulfonium, triphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 18393-55-0

CMF C18 H15 S

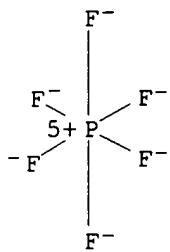


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IT 25068-38-6 25068-38-6D, reaction products with hydroxyethyl acrylate 25085-98-7

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, radiation-curable, contg. hydroxyl functional acrylic monomers)

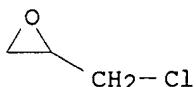
RN 25068-38-6 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8

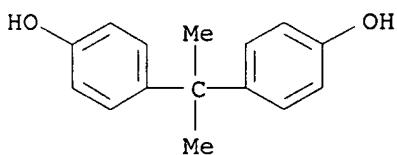
CMF C3 H5 Cl O



CM 2

CRN 80-05-7

CMF C15 H16 O2



RN 25068-38-6 HCAPLUS

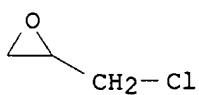
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8

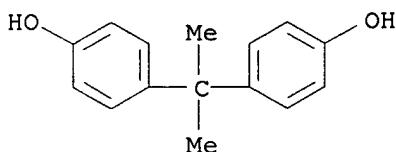
CMF C3 H5 Cl O

3/21/02 08/634,255



CM 2

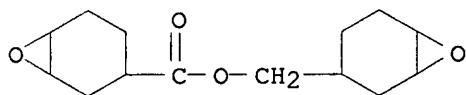
CRN 80-05-7
CMF C15 H16 O2



RN 25085-98-7 HCAPLUS
CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2386-87-0
CMF C14 H20 O4



3/21/02 08/634,255

L75 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2002 ACS

AN 1979:7133 HCAPLUS

DN 90:7133

TI Imidazole type **curing agents** and latent systems
containing them

IN Thom, Karl Friedrich

PA Minnesota Mining and Mfg. Co., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4101514	A	19780718	US 1976-723601	19760915
	US 4105667	A	19780808	US 1970-55981	19700717

PRAI US 1970-55981 19700717

AB Metal perfluoroalkyl imidazole complexes, $Mn(SO_3R_1)_m$, (M =metal; R =imidazole; n =coordination no. of M ; R_1 = perfluoroalkyl; m = valence of M), are efficient latent **curing agents** with low exotherms for **epoxy resins**. Thus, Epon 828 (I) [25068-38-6] contg. 10 parts tetraimidazole copper trifluoromethylsulfonate [68495-68-1] per 100 parts resin was heated to 150.degree. in 60 s to give a peak exotherm of 209.degree., while I contg. a prior art compd. Cu trifluoromethylsulfonate gave a peak exotherm 308.degree..

IT 25068-38-6 25085-98-7

RL: USES (Uses)

(crosslinking agents for, metal perfluoroalkylsulfonate imidazole complexes as)

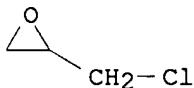
RN 25068-38-6 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8

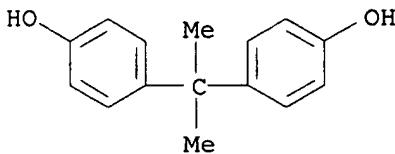
CMF C3 H5 Cl O



CM 2

CRN 80-05-7

CMF C15 H16 O2



3/21/02 08/634,255

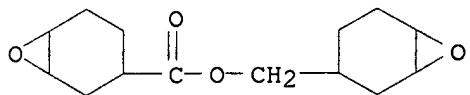
RN 25085-98-7 HCPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2386-87-0

CMF C14 H20 O4



3/21/02 08/634,255

L108 ANSWER 25 OF 30 HCPLUS COPYRIGHT 2002 ACS
AN 1986:516751 HCPLUS
DN 105:116751
TI Fluoropolymer-acrylic **polymer** blend coatings
IN Omori, Akira; Tomihashi, Nobuyuki; Inukai, Hiroshi; Shimizu, Yoshiki
PA Daikin Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L027-16

ICS C09D003-81

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61051045	A2	19860313	JP 1985-44369	19850306
US 4581412	A	19860408	US 1985-751409	19850703

PRAI JP 1983-175123 19830921
US 1984-653005 19840921
JP 1985-44369 19850306

AB A blend of a vinylidene fluoride copolymer and an acrylic polymer both contg. functional groups is highly compatible and is useful as a room-temp.-**curable** coating material giving a layer maintaining high gloss for a long time. Thus, 20 parts compn. comprising 50% copolymer from 70:10:20 mol ratio vinylidene fluoride-CF₂:CFCF₂CH₂OH-chlorotrifluoroethylene mixt. in MEK 20, 50g copolymer from 80:10:10 mol ratio Me methacrylate-hydroxyethyl methacrylate-Et methacrylate mixt. in PhMe 20, TiO₂ 6, PhMe 10, and dibutyltin dilaurate 0.005 part was mixed with 4.5 parts Coronate EH (hexamethylene diisocyanate trimer) and topcoated on an undercoated Al plate to a thickness of 25 .mu. (dry) to give a layer exhibiting pencil hardness H, crosscut adhesion test 100/100, 60.degree. gloss 81, and retention of gloss after 4000 h in a weatherometer 93%.

T 97168-11-1 97168-12-2 97168-15-5
97168-19-9 97168-22-4 104033-04-7
104033-05-8 104301-73-7

RL: USES (Uses)

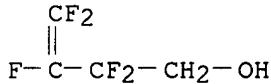
(functional group-contg. acrylic **polymer** blends,
contg. polyisocyanates, **coatings**, room-temp.-**curable**
, with high gloss)

RN 97168-11-1 HCPLUS

CN 3-Buten-1-ol, 2,2,3,4,4-pentafluoro-, polymer with 1,1-difluoroethene
(9CI) (CA INDEX NAME)

CM 1

CRN 97168-10-0
CMF C4 H3 F5 O

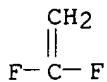


CM 2

CRN 75-38-7

3/21/02 08/634,255

CMF C2 H2 F2



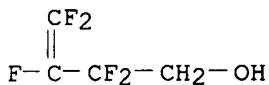
RN 97168-12-2 HCPLUS

CN 3-Buten-1-ol, 2,2,3,4,4-pentafluoro-, polymer with 1,1-difluoroethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 97168-10-0

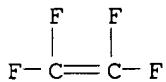
CMF C4 H3 F5 O



CM 2

CRN 116-14-3

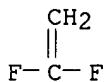
CMF C2 F4



CM 3

CRN 75-38-7

CMF C2 H2 F2



RN 97168-15-5 HCPLUS

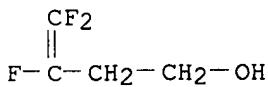
CN 3-Buten-1-ol, 3,4,4-trifluoro-, polymer with chlorotrifluoroethene and 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 97168-13-3

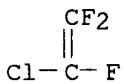
3/21/02 08/634,255

CMF C4 H5 F3 O



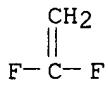
CM 2

CRN 79-38-9
CMF C2 Cl F3



CM 3

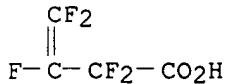
CRN 75-38-7
CMF C2 H2 F2



RN 97168-19-9 HCPLUS
CN 3-Butenoic acid, 2,2,3,4,4-pentafluoro-, polymer with
chlorotrifluoroethene and 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

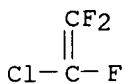
CRN 44969-80-4
CMF C4 H F5 O2



CM 2

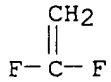
CRN 79-38-9
CMF C2 Cl F3

3/21/02 08/634,255



CM 3

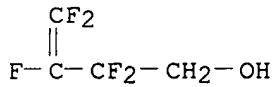
CRN 75-38-7
CMF C2 H2 F2



RN 97168-22-4 HCPLUS
CN 3-Buten-1-ol, 2,2,3,4,4-pentafluoro-, polymer with chlorotrifluoroethene
and 1,1-difluoroethene (9CI) (CA INDEX NAME)

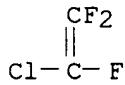
CM 1

CRN 97168-10-0
CMF C4 H3 F5 O



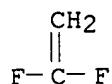
CM 2

CRN 79-38-9
CMF C2 Cl F3

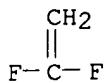


CM 3

CRN 75-38-7
CMF C2 H2 F2



3/21/02 08/634,255



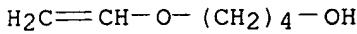
RN 104033-04-7 HCAPLUS

CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene and
1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9

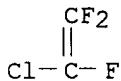
CMF C6 H12 O2



CM 2

CRN 79-38-9

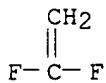
CMF C2 Cl F3



CM 3

CRN 75-38-7

CMF C2 H2 F2



RN 104033-05-8 HCAPLUS

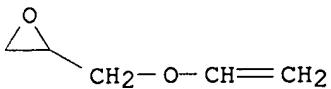
CN Oxirane, [(ethenyloxy)methyl]-, polymer with chlorotrifluoroethene and
1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 3678-15-7

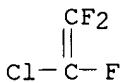
CMF C5 H8 O2

3/21/02 08/634,255



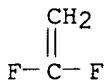
CM 2

CRN 79-38-9
CMF C2 Cl F3



CM 3

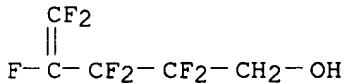
CRN 75-38-7
CMF C2 H2 F2



RN 104301-73-7 HCPLUS
CN 4-Penten-1-ol, 2,2,3,3,4,5,5-heptafluoro-, polymer with
chlorotrifluoroethylene and 1,1-difluoroethylene (9CI) (CA INDEX NAME)

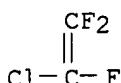
CM 1

CRN 104301-72-6
CMF C5 H3 F7 O

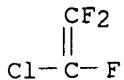


CM 2

CRN 79-38-9
CMF C2 Cl F3

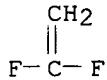


3/21/02 08/634,255



CM 3

CRN 75-38-7
CMF C2 H2 F2



IT 26141-88-8

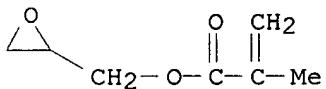
RL: USES (Uses)
(hydroxy-contg. fluoropolymer blends, contg. polyisocyanates, coatings,
room-temp.-**curable**, with high gloss)

RN 26141-88-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

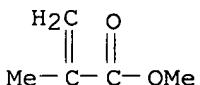
CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 80-62-6
CMF C5 H8 O2



3/21/02 08/634,255

L75 ANSWER 38 OF 42 HCPLUS COPYRIGHT 2002 ACS

AN 1977:568854 HCPLUS

DN 87:168854

TI Fluoro-anhydride curing agents and precursors for
fluorinated epoxy resins

IN Griffith, James R.; O'Rear, Jacques G.

PA United States Dept. of the Navy, USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

PI US 4045408 A 19770830 US 1976-668555 19760319

AB Fluorinated arom. anhydrides were prep'd. which were used
crosslinking agents for highly fluorinated **epoxy**
resins to give compns. having good strength, stability and low
surface activity. Thus, o-xylene [95-47-6] was treated with
hexafluoroacetone [684-16-2] in the presence of AlCl₃ to give
(2-hydroxyhexafluoro-2-propyl)-3,4-dimethylbenzene [2379-17-1], which was
oxidized in the presence of KMnO₄ at 90-100.degree. to give
4-(2-hydroxyhexafluoro-2-propyl)phthalic acid [58869-69-5], which was
converted to the anhydride **crosslinking** agent,
4-(2-hydroxyhexafluoro-2-propyl)phthalic anhydride [58851-14-2] by heating
15 min at 200.degree..

IT 64422-87-3

RL: RCT (Reactant)
(**crosslinking** of, by (hydroxyhexafluoropropyl)phthalic
anhydride)

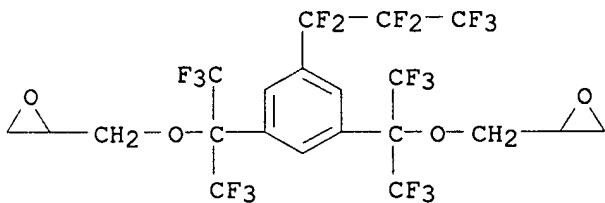
RN 64422-87-3 HCPLUS

CN Oxirane, 2,2'-[{[5-(heptafluoropropyl)-1,3-phenylene]bis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]}bis-, homopolymer (9CI) (CA
INDEX NAME)

CM 1

CRN 56164-59-1

CMF C21 H13 F19 O4

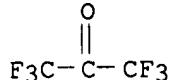


IT 684-16-2

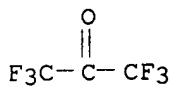
RL: RCT (Reactant)
(**reaction** of, with polymethylbenzenes)

RN 684-16-2 HCPLUS

CN 2-Propanone, 1,1,1,3,3,3-hexafluoro- (8CI, 9CI) (CA INDEX NAME)



3/21/02 08/634,255



3/21/02 08/634,255

L75 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2002 ACS
AN 1987:577659 HCAPLUS
DN 107:177659
TI Epoxy potting compositions for semiconductors
IN Sogabe, Masateru
PA Sumitomo Bakelite Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62106922	A2	19870518	JP 1985-247184	19851106
AB	Moisture-resistant potting compns. contain epoxy resins and phenolic novolaks with .gtoreq.2 phenolic OH groups and C(CF ₃)C:C[CF(CF ₃) ₂] ₂ groups as curing agents . Mixing 50 parts novolak (mol. wt. 650, residual PhOH .ltoeq.0.5%) with 19 parts C ₃ F ₆ trimer in DMF contg. Et ₃ N gave a F-contg. novolak. A blend of this novolak 8.4, Epikote-828 10, and 1,8-diazabicyclo[5.4.0]undec-7-ene 0.05 part was coated on glass and cured to form a molding with moisture absorption 2.08% in 800 h at 85.degree. and 85% relative humidity.				

IT 25068-38-6, Epikote 828

RL: USES (Uses)
(potting compns., moisture-resistant, fluorinated novolak crosslinkers for)

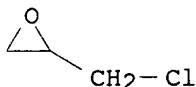
RN 25068-38-6 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8

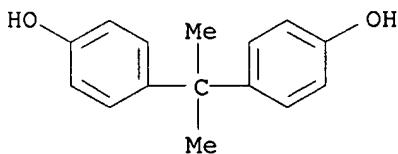
CMF C₃ H₅ Cl O



CM 2

CRN 80-05-7

CMF C₁₅ H₁₆ O₂



L75 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2002 ACS
 AN 1989:516488 HCAPLUS
 DN 111:116488
 TI **Epoxy resin compositions and their use as potting**
 compositions for semiconductor devices and in the manufacture of laminates
 IN Nishikawa, Akio; Koyama, Toru; Asano, Hideki; Sugawara, Toshio; Nagai,
 Akira; Takahashi, Akio; Katagiri, Junichi
 PA Hitachi, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01011125	A2	19890113	JP 1987-166818	19870706
	JP 07021048	B4	19950308		

AB Title compns. comprise polyfunctional **epoxy resins** and F-contg. cyanate resins contg. structural units I or II and III or IV and/or F-contg. cyanate resins contg. structural unit V or VI [R1, R2, R3 = F, CF₃, C₂F₅, C₃F₇; X₁, X₃ = H, Me, CM₃, C(CF₃)₃, OCR₁:CR₂R₃, ZC₆H₄OCN, Z = direct bond, CH₂, CMe₂, C(CF₃)₂, O, S, SO₂; X₂, X₄ = C₆H₃(OCN)Z]. Thus, 100 parts HP-607N (phenolic novolak) (VII) was heated with 1.0 part hexafluoropropylene trimer (F₃C)FC:C[CF(CF₃)₂]₂ and 0.2 mL Et₃N at 100-120.degree. for 15 min, then treated with 3.0 parts BrCN in Me₂CO-toluene at 40-60.degree. for 6 h under N to give F-contg. cyanate resin (VIII). A mixt. of EOCN-102S 100, VIII 55, Ph₃P 2, KBM 303 2, Ca stearate 1, carnauba wax 1, imide-coated red P 4, powd. fused quartz glass 80, and C black 2 parts showed glass temp. 193.degree., moisture absorption 0.3%, and 0% failure in 3000-h pressure cooker test and 0% in 2000-h pressure cooker test after immersion in a soldering bath vs. 165, 2.1, 68, and 82, resp., for a control contg. VII in place of VIII.

IT 80111-79-1, EOCN-102S

RL: USES (Uses)

(contg. fluorinated cyanate resins as **curing agents**, heat- and moisture-resistant, for potting semiconductor devices and laminate manuf.)

RN 80111-79-1 HCAPLUS

CN EOCN 102S (9CI) (CA INDEX NAME)

3/21/02 08/634,255

L100 ANSWER 5 OF 6 HCPLUS COPYRIGHT 2002 ACS
AN 1990:180721 HCPLUS
DN 112:180721
TI Method of accelerating the reaction of carboxyl group
and epoxy group
IN Fujino, Naohiko; Yanagiura, Satoshi; Kano, Isamu; Umezaki, Mitsumasa;
Nogami, Fumio
PA Mitsubishi Electric Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07C069-62
ICS C07C067-08; C08G059-02; C08G059-42
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 35

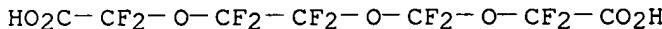
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01226853	A2	19890911	JP 1988-55234	19880308

AB The title method comprises reaction of epoxides and compds.
having F on CO₂H-adjacent carbon in absence of catalysts.
F-contg. silane coupling agents are manufd. by
treating fluoro lubricants having F on CO₂H-adjacent carbon with
alkoxysilyl- and epoxy-contg. silane coupling
agents in absence of catalysts. Epoxy resins
are cured without catalysts by treating with compds.
having F on CO₂H-adjacent carbon. Thus, 1 mol Krytox 157FS(M) and 1 mol
KBE 402 were stirred at 20.degree. for 1 min to give a F-contg. silane
coupling agent, which was used to treat granular .gamma.-Fe₂O₃ (av. size
500 .ANG.) in C₂Cl₃F₃ showed good dispersibility in fluoro solvents.
RN 126775-71-1 HCPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane,
[2-[(carboxydifluoromethoxy)difluoromethoxy]tetrafluoroethoxy]difluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 55621-22-2
CMF C7 H2 F10 O7



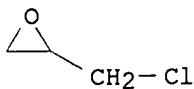
CM 2

CRN 25068-38-6
CMF (C₁₅ H₁₆ O₂ . C₃ H₅ Cl O)x
CCI PMS

CM 3

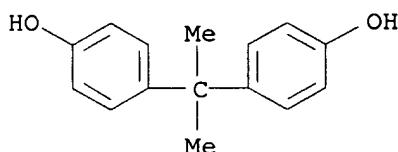
CRN 106-89-8
CMF C₃ H₅ Cl O

3/21/02 08/634, 255



CM 4

CRN 80-05-7
CMF C15 H16 O2

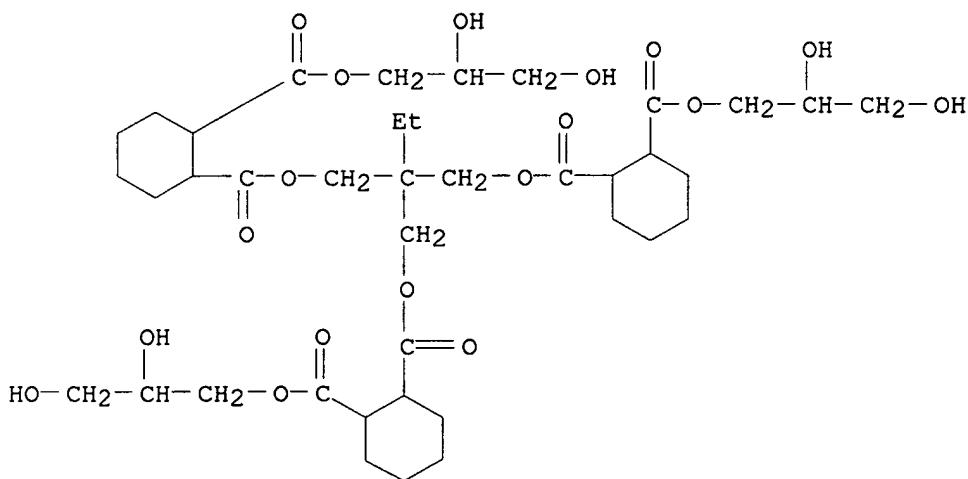


RN 126775-72-2 HCPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane,
[2-[(carboxydifluoromethoxy)difluoromethoxy]tetrafluoroethoxy]difluoroacetate, ester with 2-[[[[2-[(2,3-dihydroxypropoxy)carbonyl]cyclohexyl]carbonyl]oxy]methyl]-2-ethyl-1,3-propanediyl bis(2,3-dihydroxypropyl 1,2-cyclohexanedicarboxylate) (9CI) (CA INDEX NAME)

CM 1

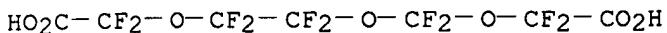
CRN 210815-66-0
CMF C39 H62 O18



CM 2

CRN 55621-22-2
CMF C7 H2 F10 O7

3/21/02 08/634,255

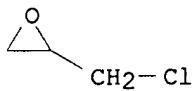


CM 3

CRN 25068-38-6
CMF (C15 H16 O2 . C3 H5 Cl O)x
CCI PMS

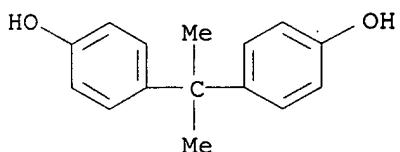
CM 4

CRN 106-89-8
CMF C3 H5 Cl O



CM 5

CRN 80-05-7
CMF C15 H16 O2



3/21/02 08/634,255

L75 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2002 ACS

AN 1979:475799 HCAPLUS

DN 91:75799

TI Crosslinking agents for aqueous **epoxy resin**
emulsion coating materials

PA Hoechst A.-G., Fed. Rep. Ger.
SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54056700	A2	19790507	JP 1978-86210	19780717
	JP 61040688	B4	19860910		
	US 4197389	A	19800408	US 1978-924050	19780712

PRAI CH 1977-8853 19770718

AB Reaction products of polyepoxides, polyalkylene glycol, and polyamine are useful as **curing agents** for aq. **epoxy** resin dispersions. Thus, a mixt. of polyethylene glycol 300, 60:40 bisphenol A diglycidyl ether-bisphenol F diglycidyl ether mixt. 470, and BF₃ amine complex 2 g was heated 30 min at 80.degree. and 5 h at 170.degree.. The above product (378 g) was added to 272 g of xylenediamine, stirred 1 h at 60.degree. and 1 h at 80.degree., and dild. with H₂O to 80% solids. The above soln. (813 g) was treated with 74 g acrylonitrile to give a **curing agent**. An 88:12 mixt. of bisphenol A-epichlorohydrin copolymer [25068-38-6] and 2-ethylhexyl glycidyl ether 66, polyethylene glycol abietate 2.67, polyethylene glycol nonylphenyl ether 2, 1-dodecaonl 1.33, and the above **curing agent** 59 parts were dispersed in H₂O to give a 60% solids emulsion having pot life 35 min. The dispersion was applied to an asbestos cement board to form a 200-.mu. coating having initial drying time 4 h 30 min, complete **curing** time 24 h, and Erichsen test penetration 10 mm.

IT 25068-38-6

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, emulsion, **curing agents** for)

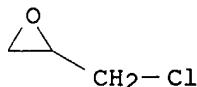
RN 25068-38-6 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8

CMF C3 H5 Cl O

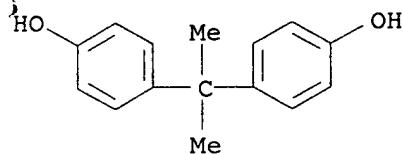


CM 2

CRN 80-05-7

CMF C15 H16 O2

3/21/02 08/634,255



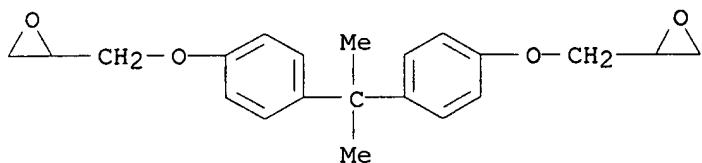
IT 1675-54-3D, reaction products with polyethylene glycol,
bisphenol F diglycidyl ether, xylylenediamine, and acrylonitrile

RL: USES (Uses)

(curing agents, for epoxy resin
emulsion coatings)

RN 1675-54-3 HCAPLUS

CN Oxirane, 2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-
(9CI) (CA INDEX NAME)



3/21/02 08/634,255

L75 ANSWER 24 OF 42 HCPLUS COPYRIGHT 2002 ACS

AN 1992:107716 HCPLUS

DN 116:107716

TI Development and study of hydrophilic epoxy based adhesives

AU Tod, D. A.; Shaw, S. J.

CS RARDE, Waltham Abbey/Essex, EN9 1AX, UK

SO Adhesion (London) (1991), 15, 196-212

CODEN: ADHED5; ISSN: 0260-4450

DT Journal

LA English

AB As the F content increases, the hydrophobicity and toughness of fluoroepoxy resin increase, but its modulus decreases. The silicone aminé-cured fluoroepoxy resin has greater hydrophobicity and toughness but lower glass transition temp. (Tg) and modulus than the fluoroanhydride-cured fluoroepoxy resin due to the greater flexibility of silicone amine. The crosslinking accelerator affects mech. properties and the moisture absorption of the fluoroepoxy resin cured. The actual depression in Tg due to the moisture absorption is lower than that normally predicted.

IT 109355-35-3P 109355-37-5P 109355-39-7P

121264-44-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and mech. properties and moisture absorption of cured
)

RN 109355-35-3 HCPLUS

CN 1-Propanamine, 3,3'-(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis-, polymer with 2,2'-[[[(tridecafluorohexyl)phenylene]bis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis[oxirane] (9CI) (CA INDEX NAME)

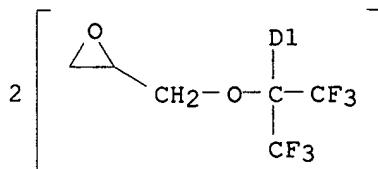
CM 1

CRN 109355-34-2

CMF C24 H13 F25 O4

CCI IDS

CDES 8:ID,RING(C6)



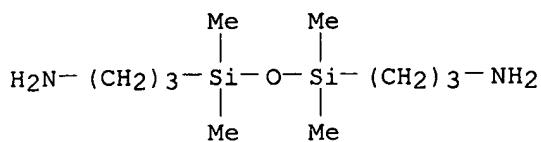
D1- (CF₂)₅-CF₃

CM 2

CRN 2469-55-8

3/21/02 08/634,255

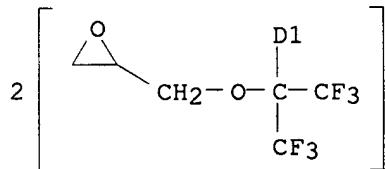
CMF C10 H28 N2 O Si2



RN 109355-37-5 HCAPLUS
CN 1-Propanamine, 3,3'-(1,1,3,3-tetramethyl-1,3-disiloxanediyyl)bis-, polymer with 2,2'-[[[heptadecafluoroctyl)phenylene]bis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

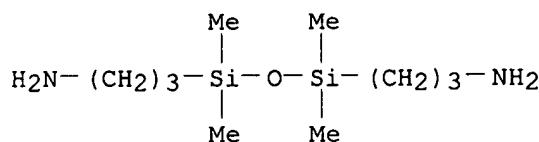
CRN 109355-36-4
CMF C26 H13 F29 O4
CCI IDS
CDES 8:ID,RING(C6)



D1-(CF₂)₇-CF₃

CM 2

CRN 2469-55-8
CMF C10 H28 N2 O Si2

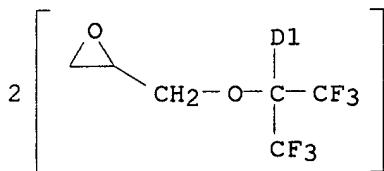


3/21/02 08/634,255

RN 109355-39-7 HCAPLUS
CN 1,3-Isobenzofurandione, 5-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-, polymer with 2,2'-[[(heptadecafluoroctyl)phenylene]bis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

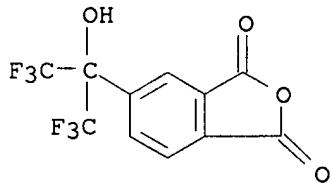
CRN 109355-36-4
CMF C26 H13 F29 O4
CCI IDS
CDES 8:ID,RING(C6)



D1- (CF₂)₇-CF₃

CM 2

CRN 58851-14-2
CMF C11 H4 F6 O4

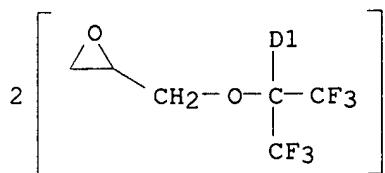


RN 121264-44-6 HCAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 2,2'-[[(heptadecafluoroctyl)phenylene]bis[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]oxymethylene]]bis[oxirane] and 5-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

3/21/02 08/634,255

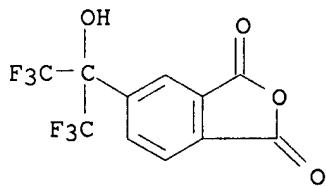
CRN 109355-36-4
CMF C26 H13 F29 O4
CCI IDS
CDES 8:ID, RING(C6)



D1-(CF₂)₇-CF₃

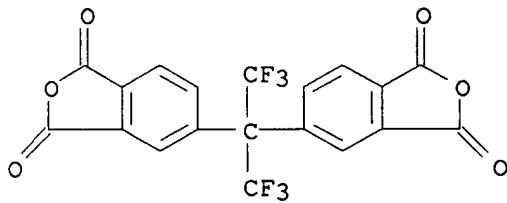
CM 2

CRN 58851-14-2
CMF C11 H4 F6 O4



CM 3

CRN 1107-00-2
CMF C19 H6 F6 O6



3/21/02 08/634,255

L108 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:684775 HCAPLUS

DN 125:303432

TI Curable fluoropolymer coating compositions with improved compatibility to pigments

IN Ishida, Tooru; Kodama, Shunichi

PA Asahi Glass Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D127-12

ICS C09D127-12

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08231920	A2	19960910	JP 1995-40987	19950228
AB Coating compns. showing good storage stability, acid resistance, gloss, and water repellency contain (A) curable group-substituted fluoropolymers having N-contg. functional groups on the terminals, (B) hardeners reactive to the curable groups, and optionally (C) polyesters, acrylic resins, polyurethanes, fluoropolymers, phenolic resins, epoxy resins , and/or acrylic siloxanes. Thus, 100 parts compn. prep'd. from 92 parts 60% nonvolatiles xylene soln. of 251:253:58 tetrafluoroethylene-cyclohexyl vinyl ether-4-hydroxybutyl vinyl ether copolymer [I, prep'd. by using 2,2-azobis-2-(2-imidazolin-2-yl)propane], 36 parts BuOAc, and 200 parts Tipaque CR 93 (TiO ₂), 100 parts compn. prep'd. from 92 parts I soln., 36 parts BuOAc, and 200 parts Daipyroxide Black 9510 (Cu-Cr-based pigment), 406 parts I soln., and 52 parts Coronate 2507 (polyisocyanate) were mixed to give a gray compn., cast on an Al plate, left at room temp. for 30 min, kneaded on the surface by brush, and dried at room temp. for 1 day to give a coating showing no color (pigment) sepn. and no color streak. RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (curable fluoropolymers terminated by nitrogen-contg. functional groups for coatings with improved compatibility to pigments)				
RN 183174-78-9	HCAPLUS			
CN 1-Butanol, 4-(ethenyloxy)-, polymer with Coronate 2507, (ethenyloxy)cyclohexane and tetrafluoroethene (9CI)	(CA INDEX NAME)			

CM 1

CRN 109190-12-7

CMF Unspecified

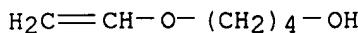
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 17832-28-9

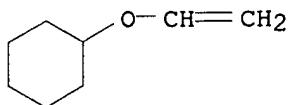
CMF C6 H12 O2



3/21/02 08/634, 255

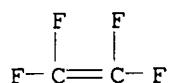
CM 3

CRN 2182-55-0
CMF C8 H14 O



CM 4

CRN 116-14-3
CMF C2 F4



RN 183174-80-3 HCAPLUS
CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene, coronate
2507, (ethenyloxy)cyclohexane and ethoxyethene (9CI) (CA INDEX NAME)

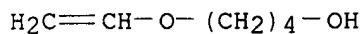
CM 1

CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

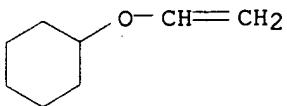
CRN 17832-28-9
CMF C6 H12 O2



CM 3

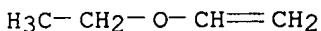
CRN 2182-55-0
CMF C8 H14 O

3/21/02 08/634,255



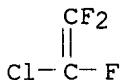
CM 4

CRN 109-92-2
CMF C4 H8 O



CM 5

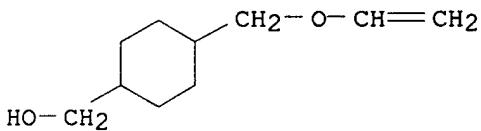
CRN 79-38-9
CMF C2 Cl F3



RN 183174-82-5 HCPLUS
CN Cyclohexanemethanol, 4-[(ethenyloxy)methyl]-, polymer with Coronate 2507,
(ethenyloxy)cyclohexane, ethoxyethene and tetrafluoroethylene (9CI) (CA
INDEX NAME)

CM 1

CRN 114651-37-5
CMF C10 H18 O2



CM 2

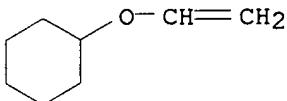
CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

3/21/02 08/634,255

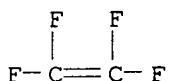
CM 3

CRN 2182-55-0
CMF C8 H14 O



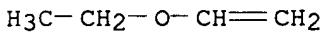
CM 4

CRN 116-14-3
CMF C2 F4



CM 5

CRN 109-92-2
CMF C4 H8 O



RN 183174-84-7 HCPLUS
CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene, Coronate 2507 and 2-methoxy-1-propene (9CI) (CA INDEX NAME)

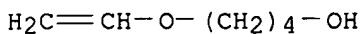
CM 1

CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

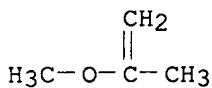
CRN 17832-28-9
CMF C6 H12 O2



3/21/02 08/634,255

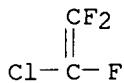
CM 3

CRN 116-11-0
CMF C4 H8 O



CM 4

CRN 79-38-9
CMF C2 Cl F3



RN 183174-86-9 HCPLUS

CN Neanonanoic acid, ethenyl ester, polymer with chlorotrifluoroethene, Coronate 2507, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane and ethoxyethene (9CI) (CA INDEX NAME)

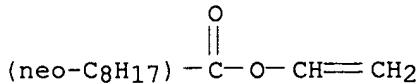
CM 1

CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 54423-67-5
CMF C11 H20 O2
CCI IDS
CDES 8:ID,NEO

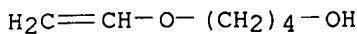


CM 3

CRN 17832-28-9

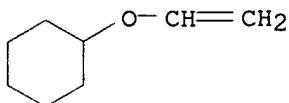
3/21/02 08/634,255

CMF C6 H12 O2



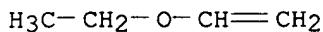
CM 4

CRN 2182-55-0
CMF C8 H14 O



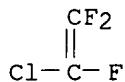
CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

CRN 79-38-9
CMF C2 Cl F3



RN 183174-88-1 HCPLUS
CN Propanoic acid, 2,2-dimethyl-, ethenyl ester, polymer with Coronate 2507,
ethoxyethene, 2-(2-propenyloxy)ethanol and tetrafluoroethene (9CI) (CA
INDEX NAME)

CM 1

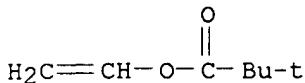
CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

3/21/02 08/634,255

CM 2

CRN 3377-92-2
CMF C7 H12 O2



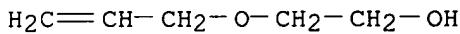
CM 3

CRN 116-14-3
CMF C2 F4



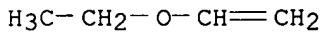
CM 4

CRN 111-45-5
CMF C5 H10 O2



CM 5

CRN 109-92-2
CMF C4 H8 O



RN 183174-90-5 HCAPLUS

CN Neanonanoic acid, ethenyl ester, polymer with chlorotrifluoroethene,
Coronate 2507, 1,1,2,3,3,3-hexafluoro-1-propene, 2-hydroxyethyl
2-butenoate and [(2-propenyloxy)methyl]oxirane (9CI) (CA INDEX NAME)

CM 1

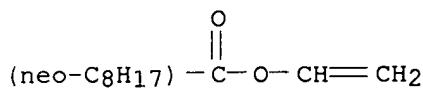
CRN 109190-12-7
CMF Unspecified
CCI MAN

3/21/02 08/634, 255

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

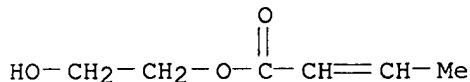
CM 2

CRN 54423-67-5
CMF C11 H20 O2
CCI IDS
CDES 8:ID, NEO



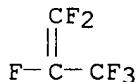
CM 3

CRN 21734-63-4
CMF C6 H10 O3



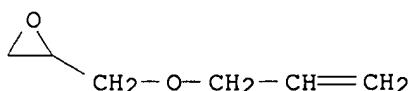
CM 4

CRN 116-15-4
CMF C3 F6



CM 5

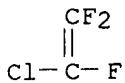
CRN 106-92-3
CMF C6 H10 O2



CM 6

3/21/02 08/634,255

CRN 79-38-9
CMF C2 Cl F3



RN 183174-91-6 HCAPLUS
CN 1-Butanol, 4-(ethenyloxy)-, polymer with chlorotrifluoroethene, Coronate 2507, (ethenyloxy)cyclohexane, 1-(ethenyloxy)-1,1,2,2,3,3,3-heptafluoropropane and ethoxyethene (9CI) (CA INDEX NAME)

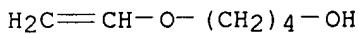
CM 1

CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

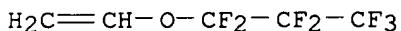
CM 2

CRN 17832-28-9
CMF C6 H12 O2



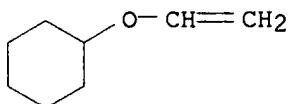
CM 3

CRN 6996-01-6
CMF C5 H3 F7 O



CM 4

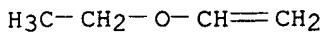
CRN 2182-55-0
CMF C8 H14 O



3/21/02 08/634,255

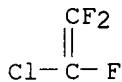
CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

CRN 79-38-9
CMF C2 Cl F3



RN 183174-92-7 HCPLUS
CN 1-Butanol, 4-(ethenyloxy)-, polymer with Coronate 2507,
(ethenyloxy)cyclohexane, ethoxyethene and tetrafluoroethene (9CI) (CA
INDEX NAME)

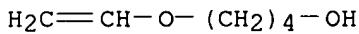
CM 1

CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

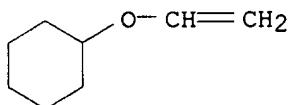
CM 2

CRN 17832-28-9
CMF C6 H12 O2



CM 3

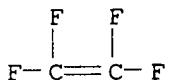
CRN 2182-55-0
CMF C8 H14 O



3/21/02 08/634,255

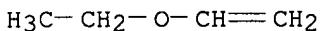
CM 4

CRN 116-14-3
CMF C2 F4



CM 5

CRN 109-92-2
CMF C4 H8 O



RN 183174-93-8 HCPLUS

CN 2-Butenoic acid, 2-hydroxyethyl ester, polymer with chlorotrifluoroethene, Coronate 2507, (ethenyloxy)cyclohexane and 2-methoxy-1-propene (9CI) (CA INDEX NAME)

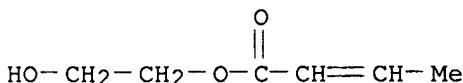
CM 1

CRN 109190-12-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

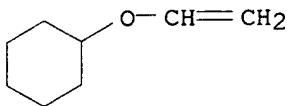
CRN 21734-63-4
CMF C6 H10 O3



CM 3

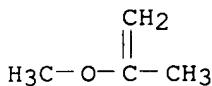
CRN 2182-55-0
CMF C8 H14 O

3/21/02 08/634,255



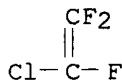
CM 4

CRN 116-11-0
CMF C4 H8 O



CM 5

CRN 79-38-9
CMF C2 Cl F3

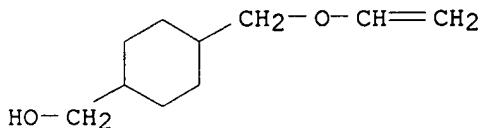


RN 183174-94-9 HCAPLUS

CN 2-Butenoic acid, 2-hydroxyethyl ester, polymer with Coronate 2507,
4-[(ethenylloxy)methyl]cyclohexanemethanol, ethoxyethene and
1,1,2,3,3,3-hexafluoro-1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 114651-37-5
CMF C10 H18 O2



CM 2

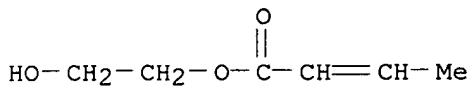
CRN 109190-12-7
CMF Unspecified
CCI MAN

3/21/02 08/634,255

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

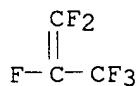
CM 3

CRN 21734-63-4
CMF C6 H10 O3



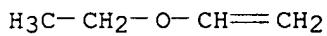
CM 4

CRN 116-15-4
CMF C3 F6

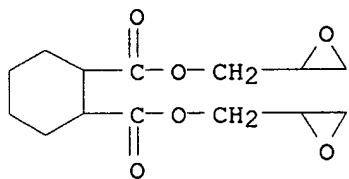


CM 5

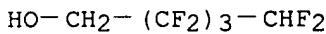
CRN 109-92-2
CMF C4 H8 O



L75 ANSWER 21 OF 42 HCPLUS COPYRIGHT 2002 ACS
 AN 1994:108298 HCPLUS
 DN 120:108298
 TI Surface properties of fluoroalkylated oligomers with carbon-carbon bond formation
 AU Sawada, Hideo; Komoto, Keiji; Sano, Masahiro; Ishidoya, Masahiro; Ogawa, Hisao
 CS Dep. Chem., Nara Natl. Coll. Technol., Yamatokoriyama, 639-11, Japan
 SO Kobunshi Ronbunshu (1993), 50(12), 983-6
 CODEN: KBRBA3; ISSN: 0386-2186
 DT Journal
 LA Japanese
 AB Fluoroalkylated oligomers with carbon-carbon bond formation were prep'd. by reactions of fluoroalkanoyl peroxides with acrylic acid and ethylene oxide unit-contg. methacrylates. These fluorinated oligomers were sol. in hydrocarbon oligomer solns. The **fluorinated** oligomers reacted with the usual **epoxy** and melamine **curing** agents to afford the **curing** films. These films exhibited surface properties typical of the amphiphiles.
 IT 5493-45-8D, polymers, fluoroalkylated derivs.
 RL: PRP (Properties)
 (films, contact angle of water or dodecane on)
 RN 5493-45-8 HCPLUS
 CN 1,2-Cyclohexanedicarboxylic acid, bis(oxiranylmethyl) ester (9CI) (CA INDEX NAME)



108 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2002 ACS
 AN 1993:451361 HCAPLUS
 DN 119:51361
 TI Ultraviolet **cure** of epoxyfluorosilicones and related systems
 AU Eckberg, Richard P.; Evans, E. Robert
 CS Res. Dev. Dep., GE Silicones, Waterford, NY, 12188, USA
 SO RadTech '92 North Am. UV/EB Conf. Expo., Conf. Proc. (1992), Volume 1,
 541-52 Publisher: RadTech Int. North Am., Northbrook, Ill.
 CODEN: 58SXA8
 DT Conference
 LA English
 CC 42-3 (Coatings, Inks, and Related Products)
 AB Fluorinated silicone polymers are prep'd. and functionalized with either 4-vinylcyclohexene monoxide or allyl glycidyl ether and then **cured** photochem. with (4-octyloxyphenyl)(phenyl)iodonium hexafluoroantimonate and isopropylthioxanthone. The resulting **cured** coatings resist attack by hydrocarbons and may be useful as fuel-resistant coatings.
 T Siloxanes and Silicones, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**epoxy, fluorine-contg.**, coatings,
 hydrocarbon-resistant, UV **curing** of)
 IT Fluoropolymers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**epoxy-siloxanes**, coatings, hydrocarbon-resistant, UV
curing of)
 IT Crosslinking catalysts
 (photochem., for fluorinated siloxane hydrocarbon-resistant coatings)
 IT Crosslinking
 (photochem., of **epoxy resin**-fluoropolymer-siloxane
 hydrocarbon-resistant coatings)
 IT Epoxy resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (siloxane-, **fluorine-contg.**, coatings, hydrocarbon-resistant,
 UV **curing** of)
 IT 355-80-6, 1H,1H,5H-Octafluoro-1-pentanol
 RL: USES (Uses)
 (UV **curing** of **fluorinated epoxy** siloxane
 hydrocarbon-resistant **coatings** in presence of)
 T 355-80-6, 1H,1H,5H-Octafluoro-1-pentanol
 RL: USES (Uses)
 (UV **curing** of **fluorinated epoxy** siloxane
 hydrocarbon-resistant **coatings** in presence of)
 RN 355-80-6 HCAPLUS
 CN 1-Pentanol, 2,2,3,3,4,4,5,5-octafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



108 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2002 ACS
 AN 1990:425058 HCAPLUS
 DN 113:25058
 TI **Curable** liquid graft fluoropolymer-polyoxyalkylenes for sealants and coatings
 IN Miura, Ryuichi; Moriwaki, Ken; Takeyasu, Hiromitu; Washita, Hiroshi;
 Miyazaki, Nobuyuki
 PA Asahi Glass Co., Ltd., Japan
 SO Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW

DT Patent
 LA English
 IC ICM C08F008-00
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 343527	A2	19891129	EP 1989-109039	19890519
	EP 343527	A3	19911227		
	EP 343527	B1	19950125		
	R: DE, FR, GB, IT				
	JP 01297410	A2	19891130	JP 1988-124908	19880524
	JP 2725280	B2	19980311		
	JP 02245005	A2	19900928	JP 1989-63910	19890317
	JP 2757436	B2	19980525		
	AU 8934922	A1	19891130	AU 1989-34922	19890518
	AU 607072	B2	19910221		
	US 5073613	A	19911217	US 1989-354197	19890519
	CA 1338794	A1	19961210	CA 1989-600400	19890523
	US 5096989	A	19920317	US 1990-556374	19900723
	US 5155173	A	19921013	US 1991-767688	19910930
	JP 09309927	A2	19971202	JP 1997-32406	19970217
	JP 3220655	B2	20011022		
	JP 10306129	A2	19981117	JP 1997-315502	19971117
	JP 2981195	B2	19991122		
PRAI	JP 1988-124908	A	19880524		
	JP 1989-63910	A	19890317		
	US 1989-354197	A3	19890519		
	US 1990-556374	A3	19900723		

AB The title polymers have 20-70 mol% repeating units derived from fluoroolefins and 1-80 mol% repeating units contg. polyoxyalkylene chains terminated with active H, epoxy, or moisture-**curable** functional groups. Chlorotrifluoroethylene 71, Et vinyl ether 38, and propoxylated hydroxybutyl vinyl ether 60 g were soln. polymd. with AIBN at 65.degree. to give a polymer with OH no. 28.4 mg KOH/g, no.-av. mol. wt. 6000, glass temp. -20.degree., and 25.degree. viscosity 15,000 cP. The above product was **cured** with Duranate D101 (1:1 OH:NCO), giving a product with elongation 600%, breaking strength 7 kg/cm², modulus (50%) 3 kg/cm², and elongation retention after 1000 h UV exposure 80%.

127739-66-6P 127739-67-7P 127739-68-8DP, functional
 derivs. 127739-68-8P

RL: PREP (Preparation)

(prepn. of liq., **curable**)

IT 127907-13-5P 127907-14-6P 127965-05-3P

RL: PREP (Preparation)

(prepn. of, for **coatings** and sealants)

IT 25322-69-4DP, reaction products with diisocyanatodimethylsilane, graft polymer with chlorotrifluoroethylene and vinyl monomers

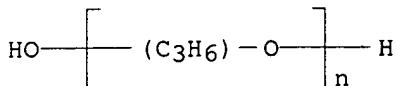
127739-68-8DP, functional derivs.

RL: PREP (Preparation)

(prepn. of liq., **curable**)

3/21/02 08/634,255

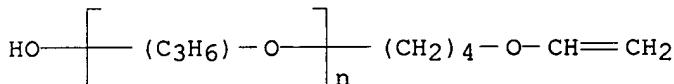
RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI)
(CA INDEX NAME)



RN 127739-68-8 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[4-(ethenylloxy)butyl]-.omega.-hydroxy-, polymer with chlorotrifluoroethene, 1,6-diisocyanatohexane and ethoxyethene (9CI) (CA INDEX NAME)

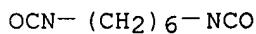
CM 1

CRN 127739-64-4
CMF (C₃ H₆ O)_n C₆ H₁₂ O₂
CCI IDS, PMS
CDES 8:ID



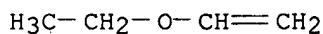
CM 2

CRN 822-06-0
CMF C₈ H₁₂ N₂ O₂



CM 3

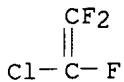
CRN 109-92-2
CMF C₄ H₈ O



CM 4

CRN 79-38-9
CMF C₂ Cl F₃

3/21/02 08/634,255



IT 127907-13-5P 127907-14-6P 127965-05-3P

RL: PREP (Preparation)

(prepn. of, for **coatings** and sealants)

RN 127907-13-5 HCAPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[4-(ethenyloxy)butyl]-.omega.-hydroxy-, polymer with chlorotrifluoroethene, Duranate D 101 and (ethenyloxy)cyclohexane (9CI) (CA INDEX NAME)

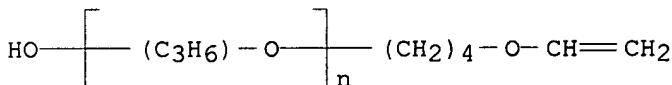
CM 1

CRN 127739-64-4

CMF (C₃ H₆ O)_n C₆ H₁₂ O₂

CCI IDS, PMS

CDES 8:ID



CM 2

CRN 127670-13-7

CMF Unspecified

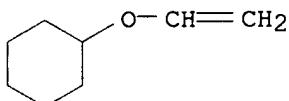
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 2182-55-0

CMF C₈ H₁₄ O

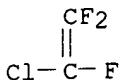


CM 4

CRN 79-38-9

CMF C₂ Cl F₃

3/21/02 08/634,255



RN 127907-14-6 HCAPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[4-(ethenyloxy)butyl]-.omega.-hydroxy-, polymer with Duranate D 101, ethoxyethene and tetrafluoroethene (9CI) (CA INDEX NAME)

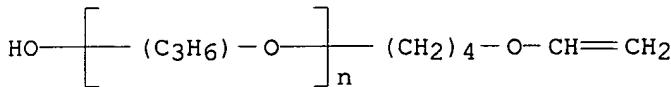
CM 1

CRN 127739-64-4

CMF (C₃H₆O)_n C₆H₁₂O₂

CCI IDS, PMS

CDES 8:ID



CM 2

CRN 127670-13-7

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 116-14-3

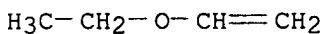
CMF C₂F₄



CM 4

CRN 109-92-2

CMF C₄H₈O



RN 127965-05-3 HCAPLUS

STIC-EIC2800 CP4-9C18

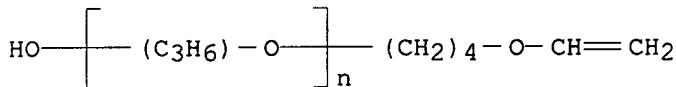
Jeff Harrison 306-5429

3/21/02 08/634,255

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[4-(ethenyoxy)butyl]-.omega.-hydroxy-, polymer with chlorotrifluoroethene, Duranate D 101 and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 127739-64-4
CMF (C₃ H₆ O)_n C₆ H₁₂ O₂
CCI IDS, PMS
CDES 8:ID



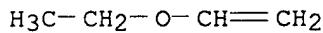
CM 2

CRN 127670-13-7
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

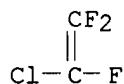
CM 3

CRN 109-92-2
CMF C₄ H₈ O



CM 4

CRN 79-38-9
CMF C₂ Cl F₃



3/21/02 08/634,255

L100 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 1992:85019 HCAPLUS

DN 116:85019

TI Coupling agent-treated fillers for plastics

IN Tezuka, Kazuhiko; Kitao, Koichi

PA Nippon Kokan K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C03C025-02

ICS C08K009-04

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 03228853	A2	19911009	JP 1990-23964
				19900202

AB The title fillers treated with compns. contg. **functional fluoro** compds. capable of **reacting** with glass fillers and/or the plastic matrix give hot water- and chem. resistant composites. Thus, glass beads (diam. 10-50 .mu.m) were dipped 10 s in a liq. contg. 0.5% .gamma.-aminopropyltrimethoxysilane and 1.0% N-[3-(trimethoxysilyl)propyl]perfluoroheptylcarbonamide (I), filtered, dried, mixed with Epikote 828-HY 932 mixt., and **cured** to give a 3-mm board with filler content 40% showing flexural strength retention 99, 98, 99, and 97%, after being dipped 1 and 7 days in water at 95.degree. and 1 and 7 days in aq. NaOH (pH 12), resp., vs. 96, 78, 92, and 71, resp., without I.

IT **Epoxy resins, uses**

RL: USES (Uses)
(contg. fluoro compd.-silane mixt.-treated fillers, with good mech. strength retention)

IT **Coupling agents**

(fluoro compd.-silane mixts., fillers treated with, for plastics)

IT **Perfluoro compounds**

RL: USES (Uses)
(silane mixts., **coupling agents**, fillers treated with, for plastics)

IT 116-15-4, Hexafluoropropene 428-59-1, Hexafluoropropene oxide

98046-76-5 127175-49-9

RL: USES (Uses)
(silane mixts., **coupling agents**, fillers treated with, for plastics)

RN 107445-41-0 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane and rel-(3aR,4S,7R,7aS)-3a,4,7,7a-tetrahydromethyl-4,7-methanoisobenzofuran-1,3-dione (9CI) (CA INDEX NAME)

CM 1

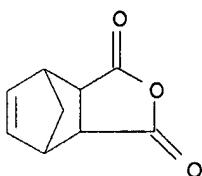
CRN 25134-21-8

CMF C10 H10 O3

CCI IDS

CDES *

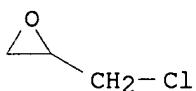
3/21/02 08/634,255



D1--Me

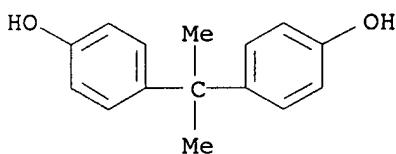
CM 2

CRN 106-89-8
CMF C3 H5 Cl O



CM 3

CRN 80-05-7
CMF C15 H16 O2



RN 138898-02-9 HCPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with Araldite HY 932 and (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

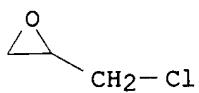
CRN 111019-33-1
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

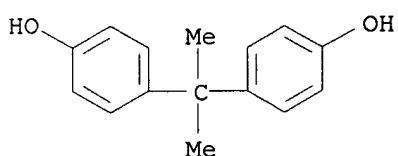
CRN 106-89-8
CMF C3 H5 Cl O

3/21/02 08/634,255



CM 3

CRN 80-05-7
CMF C15 H16 O2



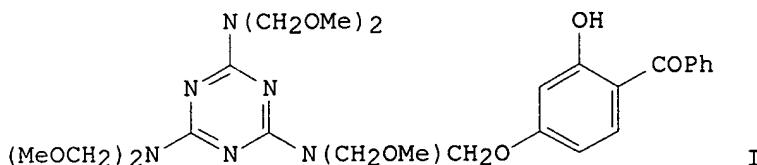
L108 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2002 ACS
 AN 1990:200807 HCAPLUS
 DN 112:200807
 TI Curable fluoropolymer compositions
 IN Takayanagi, Takashi; Miyazaki, Nobuyuki; Sasao, Yasuyuki
 PA Asahi Glass Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM C08L027-12
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 37

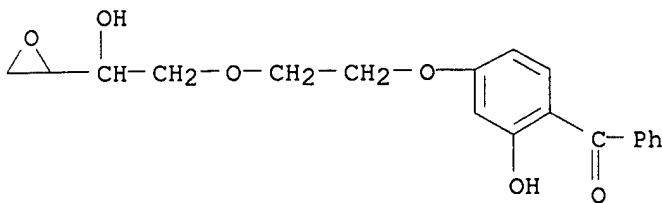
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01287160	A2	19891117	JP 1988-114863	19880513
	JP 07119346	B4	19951220		

GI



- AB The title compns. with excellent high-temp. UV absorptivity, useful for coatings, comprise solvent-sol. **curable fluoro** copolymers and **reaction** products of UV absorbers and fluoropolymer **curing** agents. Thus, 202 g Biosorb V 100 (2,4-dihydroxybenzophenone) was treated with 294 g hexa(methoxymethylol)melamine (I) in xylene in the presence of p-MeC₆H₄SO₃H at 120.degree. for 1 h to give a mixt. contg. I and an adduct II. Then, 62:12:16 C₂F₄-allyl alc.-vinyl propionate copolymer (III) 100, I-II mixt. 50, I 2, p-MeC₆H₄SO₃H 0.5, xylene 150, and MEK 100 parts were blended, applied on a glass plate, and **cured** 40 min at 130.degree. to give a test piece showing UV absorption 97, 96, and 96%, initially, after 14 days at 140.degree., and after 3000-h exposure to a Sunshine weather-o-meter, vs., 96, 20, and 70, resp., for a test piece contg. III, 2-hydroxy-4-octoxybenzophenone, and hexamethylene diisocyanate cyclic trimer.
- ST fluoropolymer blend reactive UV absorber; hardener blend fluoropolymer coating; heat resistance UV absorptivity coating; light resistance UV absorptivity coating
- IT **126958-99-4P**, 2-Hydroxy-4-(6,7-epoxy-5-hydroxy-3-oxaheptoxy)benzophenone
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction of, with fluoropolymer hardeners)
- RN 126958-99-4 HCAPLUS
- CN Methanone, [2-hydroxy-4-[2-(2-hydroxy-2-oxiranylethoxy)ethoxy]phenyl]phenyl (9CI) (CA INDEX NAME)



IT 126895-36-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, coating, with lasting UV absorptivity)

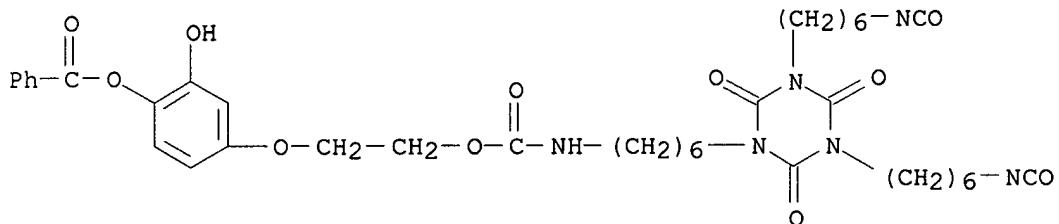
RN 126895-36-1 HCAPLUS

CN Carbamic acid, [6-[tetrahydro-3,5-bis(6-isocyanatohexyl)-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]hexyl]-, 2-[4-(benzoyloxy)-3-hydroxyphenoxy]ethyl ester, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 126895-35-0

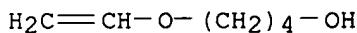
CMF C39 H50 N6 O11



CM 2

CRN 17832-28-9

CMF C6 H12 O2

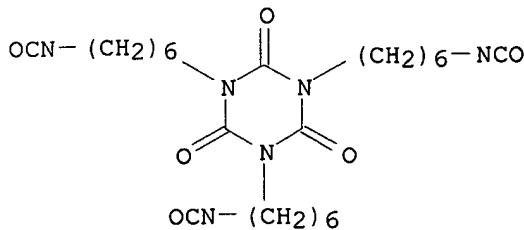


CM 3

CRN 3779-63-3

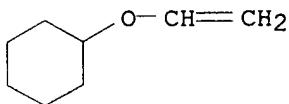
CMF C24 H36 N6 O6

3/21/02 08/634,255



CM 4

CRN 2182-55-0
CMF C8 H14 O



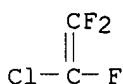
CM 5

CRN 109-92-2
CMF C4 H8 O

$$\text{H}_3\text{C}-\text{CH}_2-\text{O}-\text{CH}=\text{CH}_2$$

CM 6

CRN 79-38-9
CMF C2 C1 F3



IT 126895-38-3P 126895-44-1P 126895-45-2P

126895-47-4P 126895-49-6P 126913-59-5P

126940-63-4P 126940-64-5P 126976-98-5P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prep. of, **coating**, with lasting UV absorptivity)

RN 126895-38-3 HCPLUS

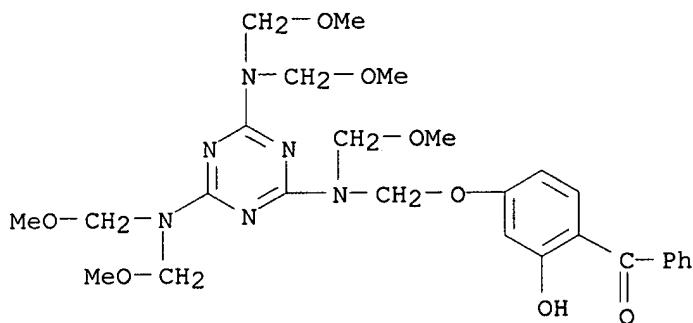
CN Propanoic acid, ethenyl ester, polymer with [4-[[[4,6-bis[bis(methoxymethyl)amino]-1,3,5-triazin-2-yl](methoxymethyl)amino]metho

3/21/02 08/634,255

xy]-2-hydroxyphenyl]phenylmethanone, N,N,N',N',N'',N'''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine, 2-propen-1-ol and tetrafluoroethene (9CI) (CA INDEX NAME)

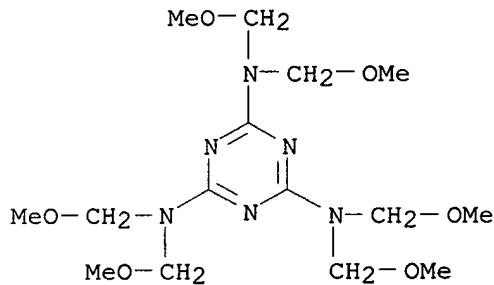
CM 1

CRN 29075-04-5
CMF C27 H36 N6 O8



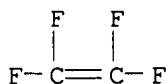
CM 2

CRN 3089-11-0
CMF C15 H30 N6 O6



CM 3

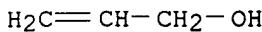
CRN 116-14-3
CMF C2 F4



CM 4

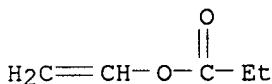
3/21/02 08/634, 255

CRN 107-18-6
CMF C3 H6 O



CM 5

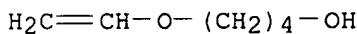
CRN 105-38-4
CMF C5 H8 O2



RN 126895-44-1 HCAPLUS
CN Butanedioic acid, mono[2-(4-benzoyl-3-hydroxyphenoxy)ethyl] ester, polymer with chlorotrifluoroethene, dihydro-2,5-furandione, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene and N,N,N',N'',N''',N'''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

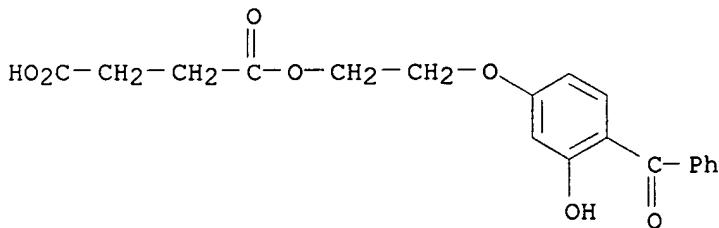
CM 1

CRN 17832-28-9
CMF C6 H12 O2



CM 2

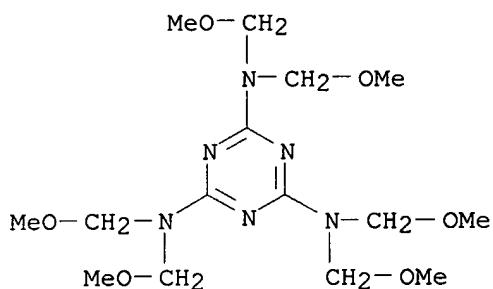
CRN 14814-20-1
CMF C19 H18 O7



3/21/02 08/634, 255

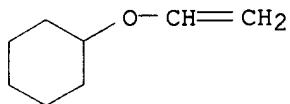
CM 3

CRN 3089-11-0
CMF C15 H30 N6 O6



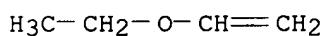
CM 4

CRN 2182-55-0
CMF C8 H14 O



CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

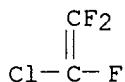
CRN 108-30-5
CMF C4 H4 O3



3/21/02 08/634,255

CM 7

CRN 79-38-9
CMF C2 Cl F3

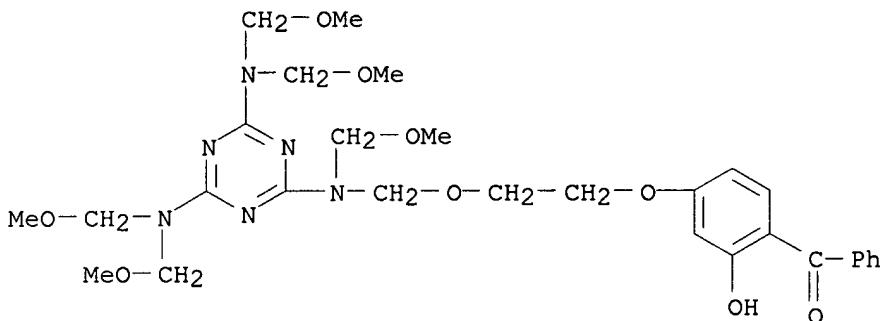


RN 126895-45-2 HCPLUS

CRN Methanone, [4-[2-[[[4,6-bis[bis(methoxymethyl)amino]-1,3,5-triazin-2-yl](methoxymethyl)amino]methoxy]ethoxy]-2-hydroxyphenyl]phenyl-, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene and N,N,N',N'',N'''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

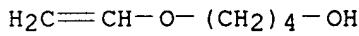
CM 1

CRN 88575-96-6
CMF C29 H40 N6 O9



CM 2

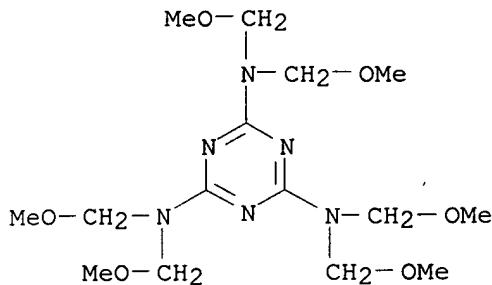
CRN 17832-28-9
CMF C6 H12 O2



CM 3

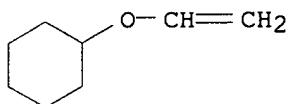
CRN 3089-11-0
CMF C15 H30 N6 O6

3/21/02 08/634,255



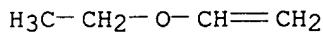
CM 4

CRN 2182-55-0
CMF C8 H14 O



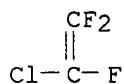
CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

CRN 79-38-9
CMF C2 Cl F3

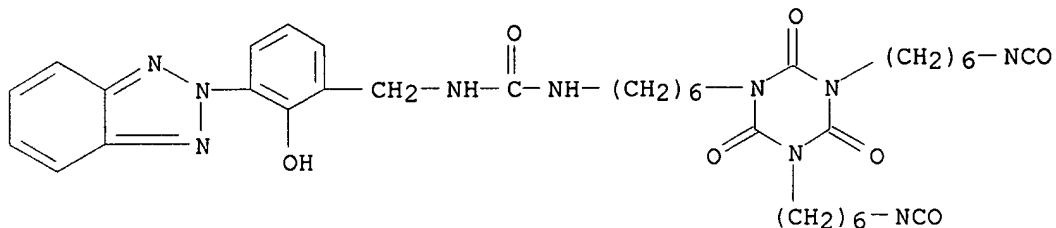


RN 126895-47-4 HCPLUS
CN Urea, N-[{3-[(2H-benzotriazol-2-yl)-2-hydroxyphenyl]methyl}-N'-(6-[tetrahydro-3,5-bis(6-isocyanatohexyl)-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]hexyl)-, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

.3/21/02 08/634, 255

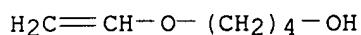
CM 1

CRN 126895-46-3
CMF C37 H48 N10 O7



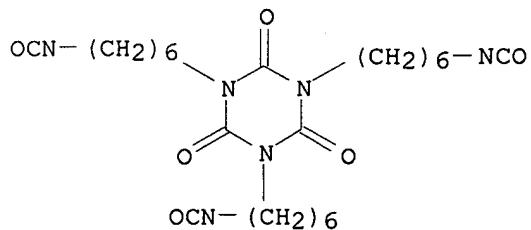
CM 2

CRN 17832-28-9
CMF C6 H12 O2



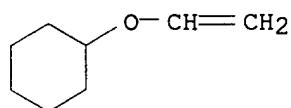
CM 3

CRN 3779-63-3
CMF C24 H36 N6 O6



CM 4

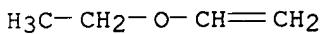
CRN 2182-55-0
CMF C8 H14 O



3/21/02 08/634, 255

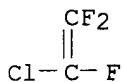
CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

CRN 79-38-9
CMF C2 Cl F3

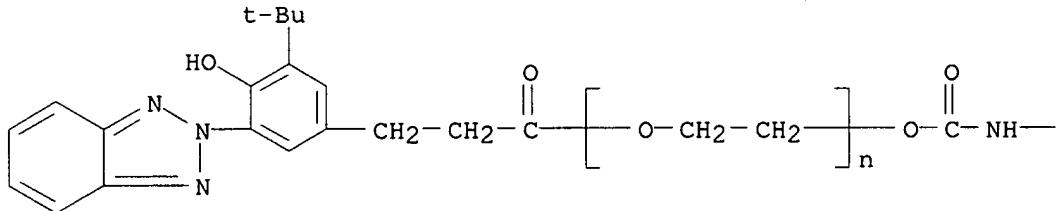


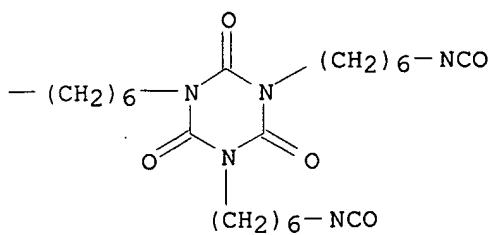
RN 126895-49-6 HCPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(6-isocyanatohexyl)-, polymer with .alpha.-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-.omega.-[[[6-[tetrahydro-3,5-bis(6-isocyanatohexyl)-2,4,6-trioxa-1,3,5-triazin-1(2H)-yl]hexyl]amino]carbonyl]oxy]poly(oxy-1,2-ethanediyl), chlorotrifluoroethylene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 126895-48-5
CMF (C2 H4 O)n C43 H57 N9 O9
CCI PMS

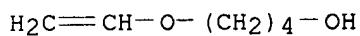
PAGE 1-A





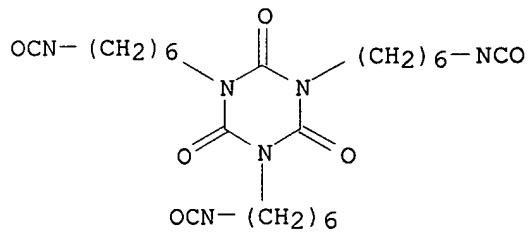
CM 2

CRN 17832-28-9
 CMF C6 H12 O2



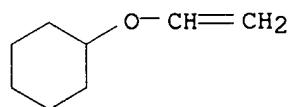
CM 3

CRN 3779-63-3
 CMF C24 H36 N6 O6



CM 4

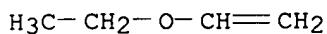
CRN 2182-55-0
 CMF C8 H14 O



. 3/21/02 08/634,255

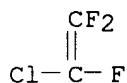
CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

CRN 79-38-9
CMF C2 Cl F3

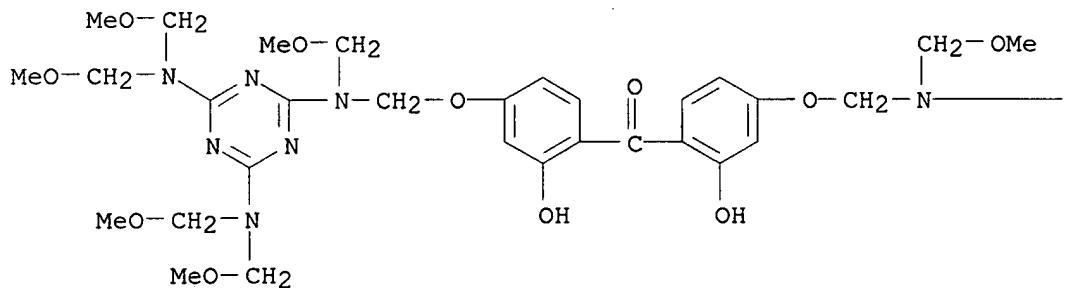


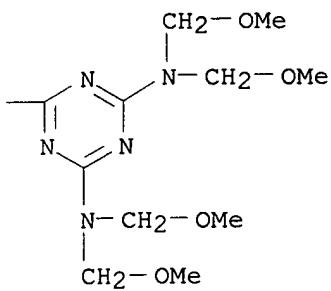
RN 126913-59-5 HCAPLUS
CN Methanone, bis[4-[[[4,6-bis[bis(methoxymethyl)amino]-1,3,5-triazin-2-yl](methoxymethyl)amino]methoxy]-2-hydroxyphenyl]-, polymer with [4-[[[4,6-bis[bis(methoxymethyl)amino]-1,3,5-triazin-2-yl](methoxymethyl)amino]methoxy]-2-hydroxyphenyl](2,4-dihydroxyphenyl)methanone, [(ethenyloxy)methyl]oxirane, 1,1,2,3,3,3-hexafluoro-1-propene, N,N,N',N',N'',N'''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine and 1-propene (9CI) (CA INDEX NAME)

CM 1

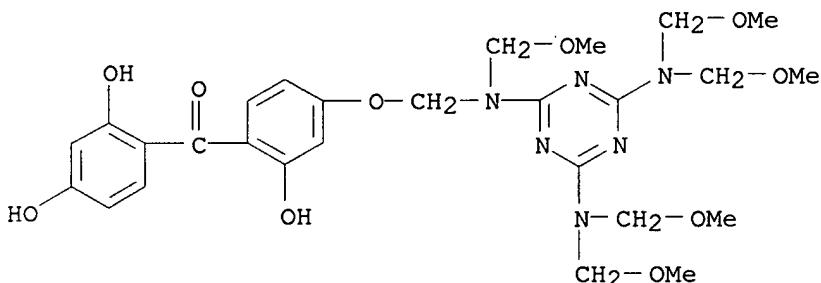
CRN 126913-58-4
CMF C41 H62 N12 O15

PAGE 1-A

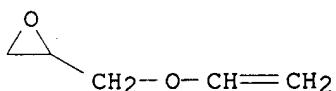




CM 2

CRN 126913-57-3
CMF C27 H36 N6 O10

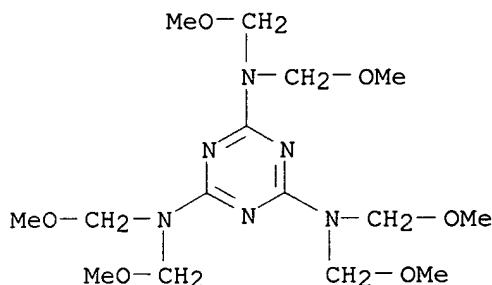
CM 3

CRN 3678-15-7
CMF C5 H8 O2

CM 4

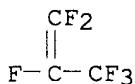
CRN 3089-11-0
CMF C15 H30 N6 O6

3/21/02 08/634, 255



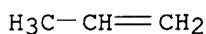
CM 5

CRN 116-15-4
CMF C3 F6



CM 6

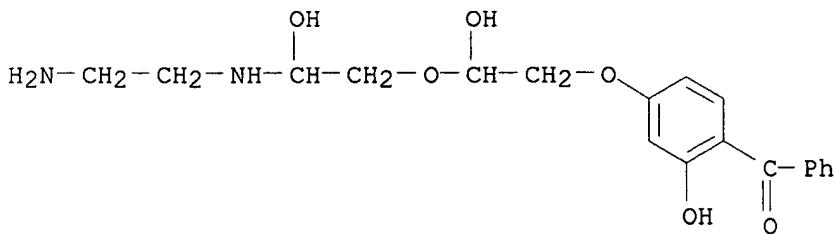
CRN 115-07-1
CMF C3 H6



RN 126940-63-4 HCPLUS
CN Propanoic acid, ethenyl ester, polymer with [4-[2-[2-[(2-aminoethyl)amino]-2-hydroxyethoxy]-2-hydroxyethoxy]-2-hydroxyphenyl]phenylmethanone, 1,2-ethanediamine, 2-propen-1-ol and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

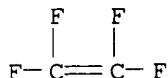
CRN 126940-62-3
CMF C19 H24 N2 O6



3/21/02 08/634,255

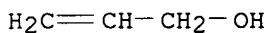
CM 2

CRN 116-14-3
CMF C2 F4



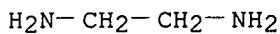
CM 3

CRN 107-18-6
CMF C3 H6 O



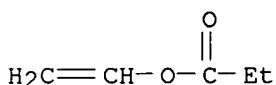
CM 4

CRN 107-15-3
CMF C2 H8 N2



CM 5

CRN 105-38-4
CMF C5 H8 O2

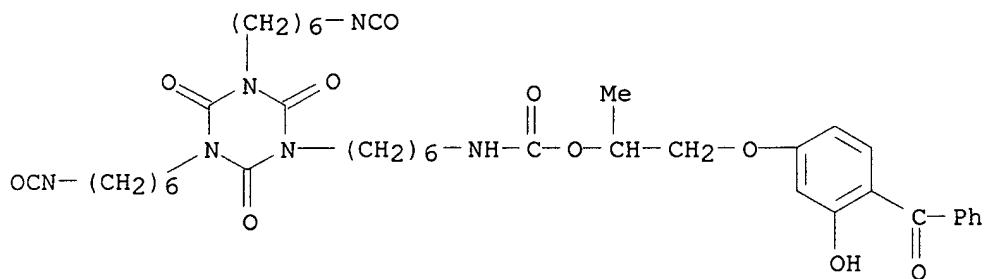


RN 126940-64-5 HCAPLUS
CN Carbamic acid, [6-[tetrahydro-3,5-bis(6-isocyanatohexyl)-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]hexyl]-, 2-(4-benzoyl-3-hydroxyphenoxy)-1-methylethyl ester, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

3/21/02 08/634, 255

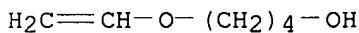
CM 1

CRN 126895-37-2
CMF C40 H52 N6 O10



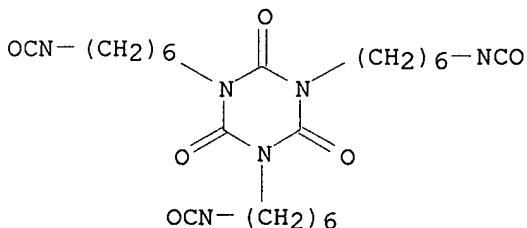
CM 2

CRN 17832-28-9
CMF C6 H12 O2



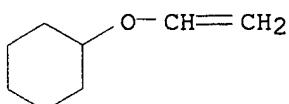
CM 3

CRN 3779-63-3
CMF C24 H36 N6 O6

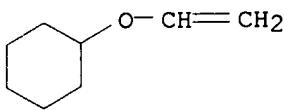


CM 4

CRN 2182-55-0
CMF C8 H14 O

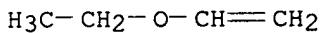


3/21/02 08/634, 255



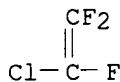
CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

CRN 79-38-9
CMF C2 Cl F3

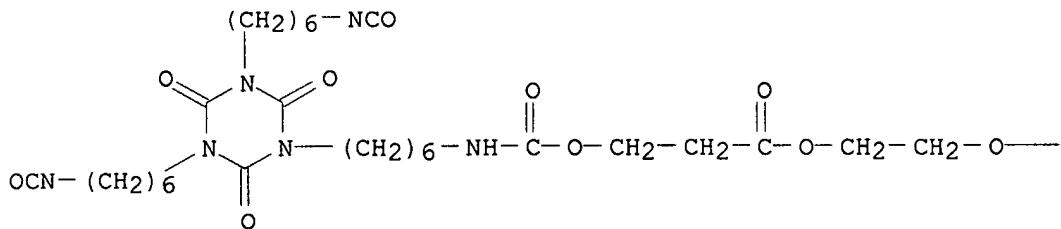


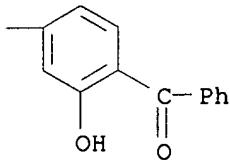
RN 126976-98-5 HCAPLUS
CN Propanoic acid, 3-[[[[6-[tetrahydro-3,5-bis(6-isocyanatohexyl)-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]hexyl]amino]carbonyl]oxy]-, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester, polymer with chlorotrifluoroethylene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

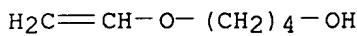
CRN 126959-02-2
CMF C42 H54 N6 O12

PAGE 1-A

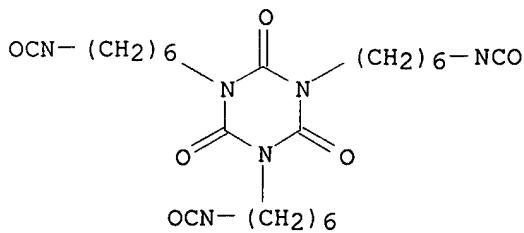




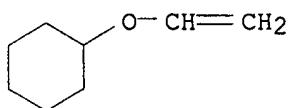
CM 2

CRN 17832-28-9
CMF C6 H12 O2

CM 3

CRN 3779-63-3
CMF C24 H36 N6 O6

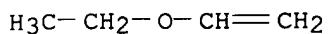
CM 4

CRN 2182-55-0
CMF C8 H14 O

• 3/21/02 08/634, 255

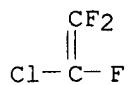
CM 5

CRN 109-92-2
CMF C4 H8 O



CM 6

CRN 79-38-9
CMF C2 Cl F3



IT 75-21-8, Oxirane, reactions 75-56-9, reactions

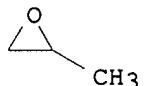
RL: RCT (Reactant)
(reaction of, with dihydroxybenzophenone)

RN 75-21-8 HCPLUS

CN Oxirane (9CI) (CA INDEX NAME)



RN 75-56-9 HCPLUS
CN Oxirane, methyl- (9CI) (CA INDEX NAME)



L108 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2002 ACS
 AN 1991:145567 HCAPLUS
 DN 114:145567
 TI Curable polymer dispersions for coating compositions
 IN Numa, Nobushige; Nakahata, Akimasa; Yamane, Masahiro; Isozaki, Osamu;
 Nakai, Noboru
 PA Kansai Paint Co., Ltd., Japan
 SO Ger. Offen., 75 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C08L101-02
 ICS C08L057-04; C08L043-04; C08F002-14; C08F002-44; C09D201-02;
 C09D157-04; C09D143-04
 ICA C08L075-04; C08L067-02; C08L083-04; C08L063-00; C08L029-02
 ICI C08L101-02, C08L101-04, C08L101-06, C08L101-10; C08L057-04, C08L057-08,
 C08L057-10
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 46

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4006578	A1	19900913	DE 1990-4006578	19900302
	DE 4006578	C2	19940915		
	JP 02232249	A2	19900914	JP 1989-52532	19890303
	GB 2229729	A1	19901003	GB 1990-4101	19900223
	GB 2229729	B2	19921007		
	CA 2011358	.AA	19900903	CA 1990-2011358	19900302
	CA 2011358	C	19971223		
	US 5418293	A	19950523	US 1993-117321	19930907
PRAI	JP 1989-52532		19890303		
	US 1990-486698		19900301		

AB The title dispersions, with good stability even at high solids concns., are prep'd. by polymn. of unsatd. compds. in org. solvents in the presence of resins contg. F, hydrolyzable alkoxy silyl or silanol groups, and epoxy groups as dispersion stabilizers. A copolymer (mol. wt. 6200) was prep'd. by AIBN-initiated polymn. of 1-[(allyloxy)methyl]-5,6-epoxyhexahydroindan 25, allyl 3-(triacetoxysilyl)propyl ether 10, vinyl acetate 10, vinyl butyrate 15, and C2C1F3 40 parts in iso-BuCOMe at 60.degree., and esterified (100 parts) with 1.4 part methacrylic acid to give a dispersing agent (I). Peroxide-initiated polymn. of styrene 10, acrylonitrile 20, MMA 29, (3,4-epoxycyclohexyl)methyl methacrylate 25, 3-(trimethoxysilyl)propyl methacrylate 5, divinylbenzene 1, and a macromer [from PhSi(OH)3 7800 and 3-(trimethoxysilyl)propyl acrylate 200 g] 10 parts in 90 parts 8:1 heptane-BuOAc contg. 200 parts 50% soln. of I gave a dispersion (av. particle size 0.15 .mu.m) of polymer which showed no pptn. or agglomeration after 3 mo at room temp.

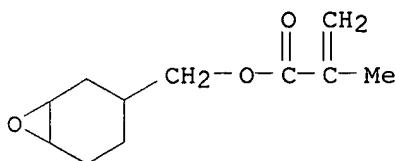
IT 82428-30-6D, polymers with acrylic compds. and silanol deriv. macromers

RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, dispersing agents for)

RN 82428-30-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester
 (9CI) (CA INDEX NAME)

3/21/02 08/634,255



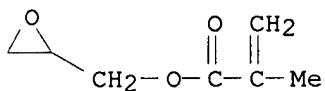
IT 106-91-2D, Glycidyl methacrylate, reaction products with functional fluoropolymers 767-11-3D, 7-Oxabicyclo[4.1.0]heptane-3-methanol, reaction products with functional fluoropolymers 132071-63-7D, reaction products with acrylic acid 132071-64-8 132071-64-8D, reaction products with (trimethoxysilyl)propylisocyanate and isocyanatoethylmethacrylate 132099-42-4D, reaction products with isocyanatoethylmethacrylate 132109-24-1 132109-24-1D, reaction products with (trimethoxysilyl)propylisocyanate and isocyanatoethylmethacrylate

RL: USES (Uses)

(dispersing agents, for acrylic polymer coating compns.)

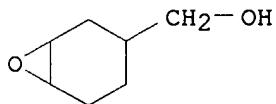
RN 106-91-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester (9CI) (CA INDEX NAME)



RN 767-11-3 HCPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-methanol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



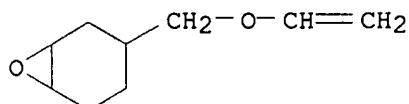
RN 132071-63-7 HCPLUS

CN 2-Propenoic acid, polymer with chlorotrifluoroethene, (ethenyloxy)cyclohexane and 3-[(ethenyloxy)methyl]-7-oxabicyclo[4.1.0]heptane (9CI) (CA INDEX NAME)

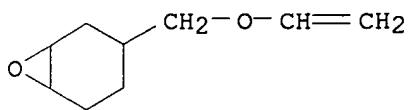
CM 1

CRN 131718-57-5

CMF C9 H14 O2

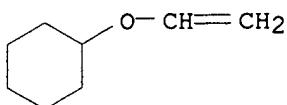


3/21/02 08/634,255



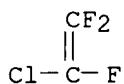
CM 2

CRN 2182-55-0
CMF C8 H14 O



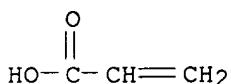
CM 3

CRN 79-38-9
CMF C2 Cl F3



CM 4

CRN 79-10-7
CMF C3 H4 O2

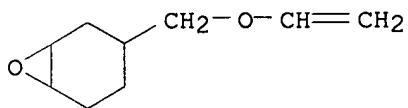


RN 132071-64-8 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with chlorotrifluoroethene,
4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane and 3-
[(ethenyloxy)methyl]-7-oxabicyclo[4.1.0]heptane (9CI) (CA INDEX NAME)

CM 1

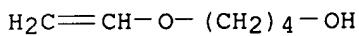
CRN 131718-57-5
CMF C9 H14 O2

3/21/02 08/634, 255



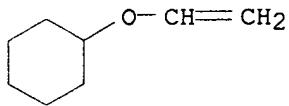
CM 2

CRN 17832-28-9
CMF C₆ H₁₂ O₂



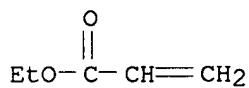
CM 3

CRN 2182-55-0
CMF C₈ H₁₄ O



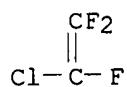
CM 4

CRN 140-88-5
CMF C₅ H₈ O₂



CM 5

CRN 79-38-9
CMF C₂ Cl F₃

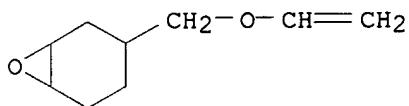


3/21/02 08/634,255

RN 132071-64-8 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with chlorotrifluoroethene,
4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane and 3-[
[(ethenyloxy)methyl]-7-oxabicyclo[4.1.0]heptane (9CI) (CA INDEX NAME)

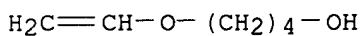
CM 1

CRN 131718-57-5
CMF C9 H14 O2



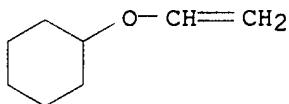
CM 2

CRN 17832-28-9
CMF C6 H12 O2



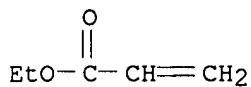
CM 3

CRN 2182-55-0
CMF C8 H14 O



CM 4

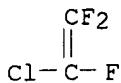
CRN 140-88-5
CMF C5 H8 O2



3/21/02 08/634,255

CM 5

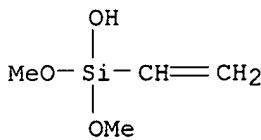
CRN 79-38-9
CMF C2 Cl F3



RN 132099-42-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
chlorotrifluoroethene, 1,4-diethenylbenzene, ethenylbenzene,
ethenyldimethoxysilanol, (ethenylloxy)cyclohexane, ethyl 2-propenoate,
.alpha.-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-.omega.-
hydroxypoly[oxy(1-oxo-1,6-hexanediyl)], 2-propenenitrile and
tetrafluoroethene (9CI) (CA INDEX NAME)

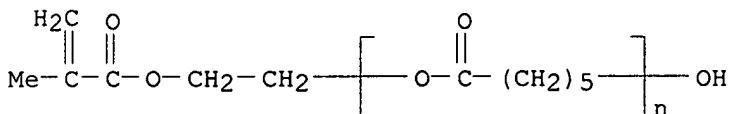
CM 1

CRN 131718-55-3
CMF C4 H10 O3 Si



CM 2

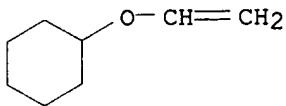
CRN 81984-60-3
CMF (C6 H10 O2)n C6 H10 O3
CCI PMS



CM 3

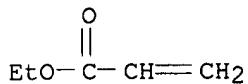
CRN 2182-55-0
CMF C8 H14 O

3/21/02 08/634, 255



CM 4

CRN 140-88-5
CMF C₅ H₈ O₂



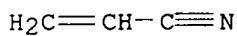
CM 5

CRN 116-14-3
CMF C₂ F₄



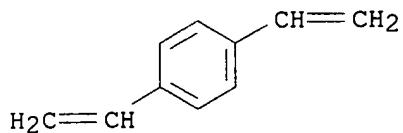
CM 6

CRN 107-13-1
CMF C₃ H₃ N



CM 7

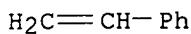
CRN 105-06-6
CMF C₁₀ H₁₀



3/21/02 08/634,255

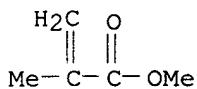
CM 8

CRN 100-42-5
CMF C8 H8



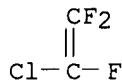
CM 9

CRN 80-62-6
CMF C5 H8 O2



CM 10

CRN 79-38-9
CMF C2 Cl F3

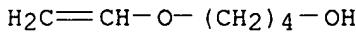


RN 132109-24-1 HCAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with chlorotrifluoroethene,
4-(ethenyl)oxy)-1-butanol and (ethenyl)oxy)cyclohexane (9CI) (CA INDEX
NAME)

CM 1

CRN 17832-28-9
CMF C6 H12 O2

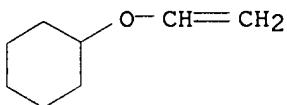


CM 2

CRN 2182-55-0

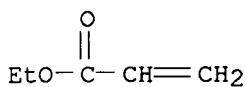
3/21/02 08/634, 255

CMF C8 H14 O



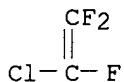
CM 3

CRN 140-88-5
CMF C5 H8 O2



CM 4

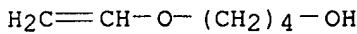
CRN 79-38-9
CMF C2 Cl F3



RN 132109-24-1 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with chlorotrifluoroethene,
4-(ethenyloxy)-1-butanol and (ethenyloxy)cyclohexane (9CI) (CA INDEX
NAME)

CM 1

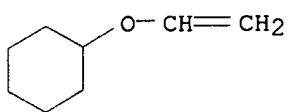
CRN 17832-28-9
CMF C6 H12 O2



CM 2

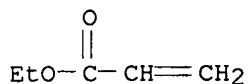
CRN 2182-55-0
CMF C8 H14 O

3/21/02 08/634, 255



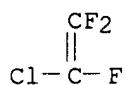
CM 3

CRN 140-88-5
CMF C5 H8 O2



CM 4

CRN 79-38-9
CMF C2 Cl F3



L30 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2002 ACS
 AN 1989:479484 HCAPLUS
 DN 111:79484
 TI Fluorine-containing alicyclic and aromatic cyclic compounds, process, and adhesive composition containing the compounds
 IN Maruno, Tohru; Nakamura, Kozaburo; Murata, Norio; Omori, Akira; Shimizu, Yoshiki; Kubo, Motonobu; Kobayashi, Hideo
 PA Daikin Industries, Ltd., Japan; Nippon Telegraph and Telephone K. K.
 SO Eur. Pat. Appl., 31 pp.
 CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 295639	A2	19881221	EP 1988-109495	19880614
	EP 295639	A3	19891102		
	EP 295639	B1	19931201		
	R: DE, FR, GB, IT, NL				
	JP 01085949	A2	19890330	JP 1988-146243	19880614
	JP 08030028	B4	19960327		
	US 5157148	A	19921020	US 1990-587131	19901018
	US 5202360	A	19930413	US 1991-737577	19910729

PRAI JP 1987-149784 19870615
 JP 1987-308556 19871208
 US 1988-205853 19880613
 US 1990-586846 19901018

AB Heat- and water-resistant adhesive compns. with low refractive index, useful for optical parts, comprise epoxides $RCH_2O[C(CF_3)_2MC(CF_3)_2OCH_2CH(OH)CH_2O]_nC(CF_3)_2MC(CF_3)_2OCH_2R$ (I; R = glycidyl; M = divalent group of .gtoreq.1 alicyclic or arom. hydrocarbon, may be linked with O, S, CH₂, or may form a condensed ring; n = 0 or pos. no.) or epoxy acrylates I (R = CH₂:CYCO₂CH₂CH(OH)-, M and n are as above, Y = H or Me) and photopolymn. initiator or curing agent. The reaction of 4 mol hexafluoroacetone with 2 mol Ph₂O at 40-50.degree. in the presence of AlCl₃ gave a diol (b.p. 144-146.degree.) which was further reacted with epichlorohydrin to give the corresponding diglycidyl ether compd. I (R = glycidyl; M = p-C₆H₄O-pC₆H₄), (II). A compn. contg. II (n = 0.2) (epoxy equiv. 360, refractive index 1.47) 70, HCF₂CF₂CH₂OR₁ (R₁ = glycidyl) 30, and hexafluorophosphate triphenylsulfonium 3 parts was cured at 60.degree. using 100 mJ/cm² UV light to give a cured product with refractive index 1.494, adhesion (to glass at 23.degree.) 147 kg/cm², and heat resistance (time of sepns. of adhesive from glass in 80.degree. water) >24 h, vs. 1.564, 110, and >24, resp., for amine-cured Epikote 828.

3/21/02 08/634,255

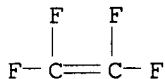
L108 ANSWER 26 OF 30 HCPLUS COPYRIGHT 2002 ACS
AN 1985:561947 HCPLUS
DN 103:161947
TI Radiation-curable coating compositions
PA Dainichiseika Color and Chemicals Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09D005-00
ICS C08J007-04; C09D003-58; C09D003-727
ICA C08F002-48
CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60094468	A2	19850527	JP 1983-202804	19831031
	JP 01049306	B4	19891024		
AB	The title compns., flexible and scratch-resistant, contain 60-99.9 parts radiation curable monomer or oligomer mixt. (5-100% with .gtoreq.3 functional groups) and 0.1-40 parts fluoropolymer powder or beads. Thus, a mixt. of TLP 10F1 (PTFE) [9002-84-0] (particle diam. 8-16 .mu.) 20, difunctional urethane acrylate (mol. wt. 1500-2000) 40, trimethylolpropane trimethacrylate (I) 20, and N-vinylpyrrolidone 20 parts (viscosity 500 cP at 25.degree.) was coated on a PVC flooring sheet to 40 .mu. and electron beam-cured (50 Mrad) in 3 s to give a matte, semitransparent layer with Taber abrasion 2.5 mg (1000 cycles, 500 g), compared with 12 mg with tripropylene glycol dimethacrylate in place of I.				
IT	50-70-4D, glycidyl ethers	3290-92-4	9002-84-0	15625-89-5	
	25038-71-5	25068-38-6	29570-58-9	42978-66-5	
	RL: USES (Uses)	(in radiocurable coatings)			
IT	9002-84-0	25038-71-5	25068-38-6		
	RL: USES (Uses)	(in radiocurable coatings)			
RN	9002-84-0	HCPLUS			
CN	Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)				

CM 1

CRN 116-14-3
CMF C2 F4

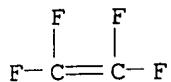


RN 25038-71-5 HCPLUS
CN Ethene, tetrafluoro-, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

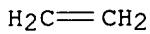
CRN 116-14-3
CMF C2 F4

3/21/02 08/634,255



CM 2

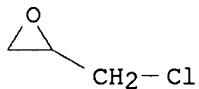
CRN 74-85-1
CMF C2 H4



RN 25068-38-6 HCPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane
(9CI) (CA INDEX NAME)

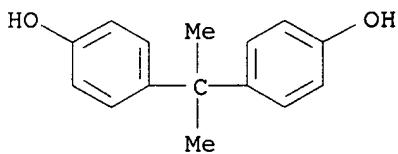
CM 1

CRN 106-89-8
CMF C3 H5 Cl O



CM 2

CRN 80-05-7
CMF C15 H16 O2



3/21/02 08/634,255

L108 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2002 ACS

AN 1985:63716 HCAPLUS

DN 102:63716

TI Photo-curable epoxy resin compositions

PA Union Carbide Corp., USA

SO Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C08G059-40; C08G059-20; C09D003-58

CC 42-9 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59147018	A2	19840823	JP 1984-18530	19840206
JP 63040442	B4	19880811		
CA 1243147	A1	19881011	CA 1984-445640	19840119
EP 119425	A1	19840926	EP 1984-101196	19840206
EP 119425	B1	19900124		
R: BE, DE, FR, GB, IT, NL				
US 4874798	A	19891017	US 1985-798363	19851118

PRAI US 1983-464571 19830207

AB A photo-curable alicyclic epoxy resin coating compn. contg. an active H-contg. org. compd., a photo-initiator, and an alicyclic monoepoxide-based reactive diluent has low soln. viscosity and gives a tough, water-resistant layer. Thus, a mixt. of ERL 4221 [25085-98-7] 66.41, Tone 0305 [92680-70-1] (polycaprolactone triol) 29.09, 4-vinylcyclohexane monoepoxide [106-86-5] (diluent) 4.0, FC 508 [57835-99-1] 4.0, and FC 171 [74913-25-0] (fluorinated alkyl ester) (surfactant) 0.5 parts with viscosity 258 cP was coated on a steel panel to a thickness of 0.8-1.1 mil and UV-cured to give a layer with pencil hardness H, crosscut adhesion test 100/100, and Gardner impact strength 175 in.-lbs. A compn. not contg. a diluent gave a layer with similar properties but had viscosity 810 cP.

T 11114-17-3 74913-25-0

RL: USES (Uses)
(surfactants, for UV-curable alicyclic epoxy resin coatings)

IT 68924-34-5

RL: USES (Uses)
(3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane carboxylate polymer)

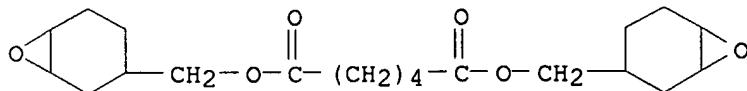
RN 68924-34-5 HCAPLUS

CN Hexanedioic acid, bis(7-oxabicyclo[4.1.0]hept-3-ylmethyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3130-19-6

CMF C20 H30 O6



IT 25322-69-4D, polyol

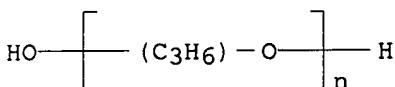
RL: USES (Uses)

3/21/02 08/634,255

(alicyclic **epoxy resin** coatings contg., UV-
curable, with low viscosity and tough **cured** layers)

RN 25322-69-4 HCAPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI)
(CA INDEX NAME)



IT 25085-98-7

RL: USES (Uses)
(coating, UV-**curable**, with low viscosity and tough
cured layers)

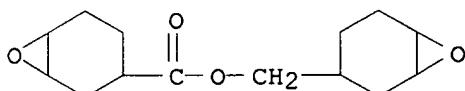
RN 25085-98-7 HCAPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2386-87-0

CMF C14 H20 O4



IT 26616-47-7

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, UV-**curable**, with low viscosity tough **cured**
layers)

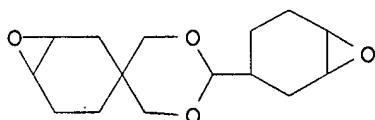
RN 26616-47-7 HCAPLUS

CN Spiro[1,3-dioxane-5,3'-(7]oxabicyclo[4.1.0]heptane], 2-(7-
oxabicyclo[4.1.0]hept-3-yl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3388-03-2

CMF C15 H22 O4



IT 57835-99-1

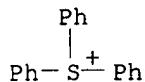
RL: USES (Uses)
(photopolymn. initiators, for UV-**curable** alicyclkic
epoxy resin coatings)

3/21/02 08/634,255

RN 57835-99-1 HCPLUS
CN Sulfonium, triphenyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

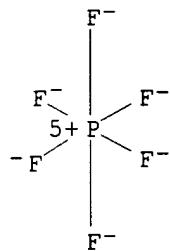
CM 1

CRN 18393-55-0
CMF C18 H15 S



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS

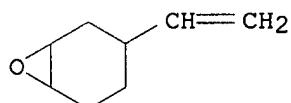


IT 106-86-5

RL: USES (Uses)
(reactive diluent, UV-curable alicyclic **epoxy**
resin coatings contg., with low viscosity and tough
cured layers)

RN 106-86-5 HCPLUS

CN 7-Oxabicyclo[4.1.0]heptane, 3-ethenyl- (9CI) (CA INDEX NAME)



3/21/02 08/634,255

L108 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2002 ACS

AN 1990:79591 HCAPLUS

DN 112:79591

TI Radiation-curable resin compositions for coatings with high hardness and toughness

IN Okamoto, Shuichi; Miyazaki, Nobuyuki; Munakata, Seiji

PA Asahi Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F020-22

ICS C08F002-48; C08F020-22; C09D003-727; C09D005-00

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 01182306	A2	19890720	JP 1988-3225	19880112
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AB The title compns. giving coatings with improved weather resistance and lower refractive indexes contain fluoro compds. having .gtoreq.2 C-C unsatd. groups. Thus, polymg. 53:23:21% chlorotrifluoroethylene-hydroxybutyl vinyl ether-Et vinyl ether, and reacting the polymer (OH value 100 mg KOH/g, no.-av. mol. wt. 4000) with 2-isocyanatoethyl methacrylate in xylene in the presence of hydroquinone Me ether 50, CH₂:CHCO₂C₂H₄C₆F₁₂C₂H₄O₂CCHCH₂(I) 30, pentaerythritol triacrylate 15, C₉F₁₉CH₂CH₂O₂CCH:CH₂ 5, and Irgacure 184 5 parts, spreading on a glass plate, and UV irradiating produced a coating with pencil hardness 3H, yellowness change (300 h UV irradn.) <0.1 and refractive index 1.43, vs. 2H, 3.4, and 1.47, resp., without I.

T 125098-67-1 125098-68-2 125167-57-9

125193-70-6

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, weather-resistant, with improved hardness and low
refractive index)

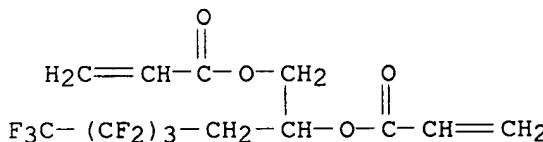
RN 125098-67-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8-dodecafluoro-1,10-decanediyl di-2-propenoate, 4-(ethenyloxy)-1-butanol, ethoxyethene, 2-(hydroxymethyl)-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1-(2,2,3,3,4,4,5,5,5-nonafluoropentyl)-1,2-ethanediyl di-2-propenoate and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 125098-66-0

CMF C13 H11 F9 O4

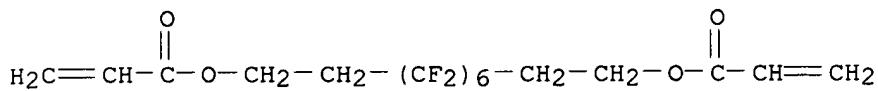


CM 2

CRN 115137-52-5

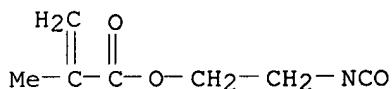
CMF C16 H14 F12 O4

3/21/02 08/634, 255



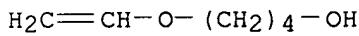
CM 3

CRN 30674-80-7
CMF C7 H9 N O3



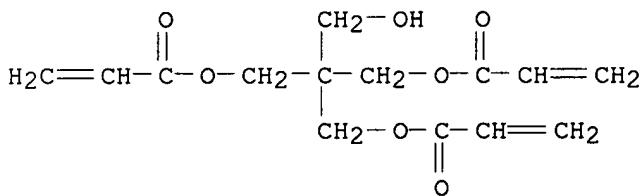
CM 4

CRN 17832-28-9
CMF C6 H12 O2



CM 5

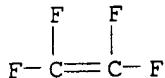
CRN 3524-68-3
CMF C14 H18 O7



CM 6

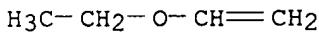
CRN 116-14-3
CMF C2 F4

3/21/02 08/634, 255



CM 7

CRN 109-92-2
CMF C4 H8 O

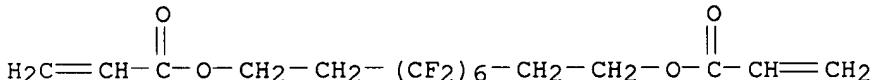


RN 125098-68-2 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8-dodecafluoro-1,10-decanediyl ester, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethyldene)bis[phenol] di-2-propenoate and 2-(hydroxymethyl)-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

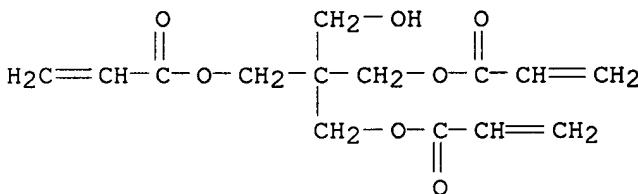
CM 1

CRN 115137-52-5
CMF C16 H14 F12 O4



CM 2

CRN 3524-68-3
CMF C14 H18 O7



CM 3

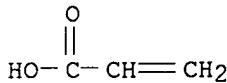
CRN 53814-24-7
CMF (C15 H16 O2 . C3 H5 Cl O)x . 2 C3 H4 O2

3/21/02 08/634,255

CDES 8:GD, ESTER

CM 4

CRN 79-10-7
CMF C3 H4 O2

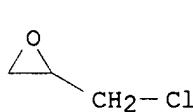


CM 5

CRN 25068-38-6
CMF (C15 H16 O2 . C3 H5 Cl O)x
CCI PMS

CM 6

CRN 106-89-8
CMF C3 H5 Cl O

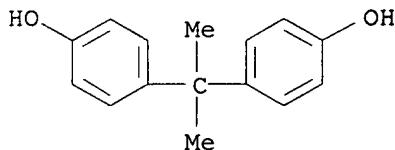


chloromethyl
oxirane

phenol, 4,4'-(1-methylethylidene) bis-
polymer with
chloromethyl oxirane

CM 7

CRN 80-05-7
CMF C15 H16 O2



RN 125167-57-9 HCAPLUS

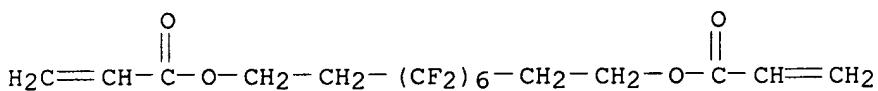
CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with
3,3,4,4,5,5,6,6,7,7,8,8-dodecafluoro-1,10-decanediyl di-2-propenoate,
4-(ethenyl)oxy)-1-butanol, ethoxyethene, 2-(hydroxymethyl)-2-[(1-oxo-2-
propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate,
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl
2-propenoate and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 115137-52-5

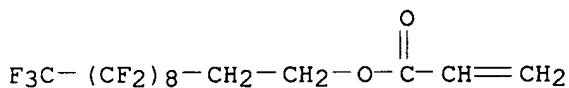
3/21/02 08/634,255

CMF C16 H14 F12 O4



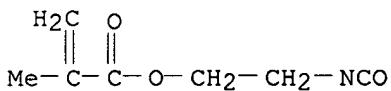
CM 2

CRN 41328-01-2
CMF C14 H7 F19 O2



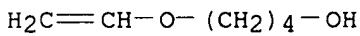
CM 3

CRN 30674-80-7
CMF C7 H9 N O3



CM 4

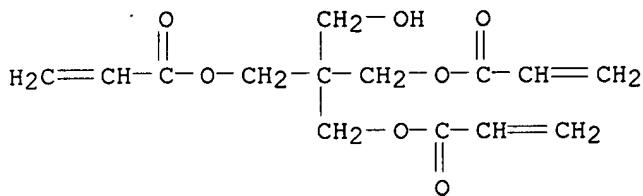
CRN 17832-28-9
CMF C6 H12 O2



CM 5

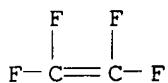
CRN 3524-68-3
CMF C14 H18 O7

3/21/02 08/634, 255



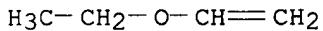
CM 6

CRN 116-14-3
CMF C2 F4



CM 7

CRN 109-92-2
CMF C4 H8 O

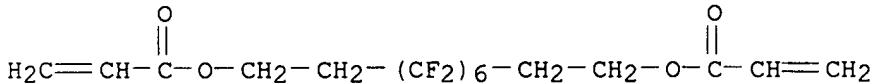


RN 125193-70-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with chlorotrifluoroethene, 3,3,4,4,5,5,6,6,7,7,8,8-dodecafluoro-1,10-decanediyl di-2-propenoate, 4-(ethenyloxy)-1-butanol, ethoxyethene, 2-(hydroxymethyl)-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 115137-52-5
CMF C16 H14 F12 O4

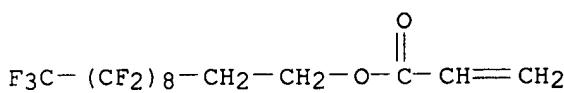


CM 2

CRN 41328-01-2

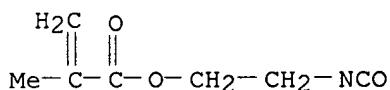
3/21/02 08/634,255

CMF C14 H7 F19 O2



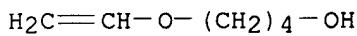
CM 3

CRN 30674-80-7
CMF C7 H9 N O3



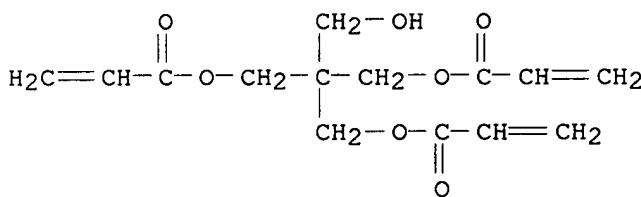
CM 4

CRN 17832-28-9
CMF C6 H12 O2



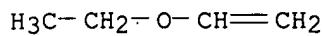
CM 5

CRN 3524-68-3
CMF C14 H18 O7

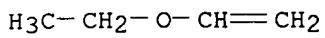


CM 6

CRN 109-92-2
CMF C4 H8 O

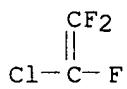


3/21/02 08/634,255



CM 7

CRN 79-38-9
CMF C2 Cl F3



L108 ANSWER 30 OF 30 HCPLUS COPYRIGHT 2002 ACS

AN 1974:571514 HCPLUS

DN 81:171514

TI Coating solution of citric acid, malonic acid, or the acid ester of citric or malonic acid with a selected polyhydroxy aliphatic acid, and a selected fluoroolefin copolymer

IN Cargagna, Paul D.

PA du Pont de Nemours, E. I., and Co.

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

IC C08F

NCL 260033400R

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3819562	A	19740625	US 1972-311978	19721204
	BE 807793	A1	19740527	BE 1973-138158	19731126
	JP 49098836	A2	19740918	JP 1973-133657	19731130
	IT 1012102	A	19770310	IT 1973-32021	19731130
	FR 2208952	A1	19740628	FR 1973-42974	19731203
	FR 2208952	B1	19781110		
	AU 7363137	A1	19750605	AU 1973-63137	19731203
	GB 1442412	A	19760714	GB 1973-55995	19731203
	DE 2360429	A1	19740606	DE 1973-2360429	19731204
	NL 7316605	A	19740606	NL 1973-16605	19731204
	AT 7310155	A	19760615	AT 1973-10155	19731204
	AT 335018	B	19770225		

AB Compns. contg. **reactive** copolymers with hydroxyl or glycidyl groups and polycarboxylic acids yielded adherent, transparent, hydrolysis-resistant, abrasion-resistant, thermoformable **coatings** when **cured** at moderate temps. for relatively short times. Thus, a **coating** soln. contg. 11% BuOH soln. of 1:1 4-hydroxybutylvinyl ether-tetrafluoroethylene polymer [25120-52-9] 100, malonic acid 2.5, AcOH 20, silicone leveling agent 0.01 and methyl isobutyl ketone 10 g and 0.64 ml 20% MeC₆H₄SO₃H in isopropanol was applied on poly(methyl methacrylate) [26141-88-8] panels, dried 45 min at 25% relative humidity and **cured** at 170.deg. for 30 min, to give films with good optical properties, excellent adhesion and moderate abrasion resistance.

IT 25120-52-9 26141-88-8

RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, contg. polycarboxylic acids, abrasion- and
 hydrolysis-resistant)

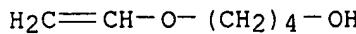
RN 25120-52-9 HCPLUS

CN 1-Butanol, 4-(ethenyloxy)-, polymer with tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9

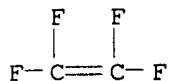
CMF C6 H12 O2



3/21/02 08/634,255

CM 2

CRN 116-14-3
CMF C2 F4

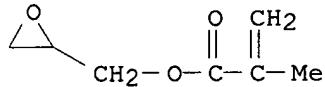


RN 26141-88-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

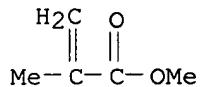
CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 80-62-6
CMF C5 H8 O2



3/21/02 08/634,255

L13 ANSWER 10 OF 14 HCPLUS COPYRIGHT 2002 ACS

AN 1996:397246 HCPLUS

DN 125:61114

TI Storage-stable powder coating compositions with epoxysilane components

IN Murakami, Ichiro; Akamatsu, Shoji; Agawa, Tetsuro

PA Dow Corning Toray Silicone Co., Ltd., Japan

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C09D005-03

ICS C09D163-00; C09D183-06

CC 42-10 (Coatings, Inks, and Related Products)

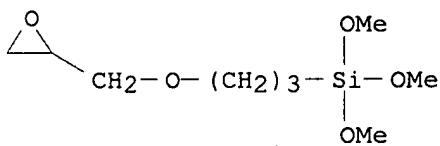
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9611988	A1	19960425	WO 1995-JP2093	19951012
	W: US				
	RW: DE, FR, GB				
	JP 08113696	A2	19960507	JP 1994-275590	19941014
	EP 735118	A1	19961002	EP 1995-934286	19951012
	R: DE, FR, GB				
	US 6090890	A	20000718	US 1996-652595	19960813
PRAI	JP 1994-275590	A	19941014		
	WO 1995-JP2093	W	19951012		

AB Title compns., with good throwing power, and impact, soil, and weather resistance, comprise 2-98:2-98 branched epoxidized organopolysiloxanes and compds. having epoxy group-reactive functional groups. A powd. compn. of 1,12-dodecanedioic acid 15, benzoin 1, a leveling agent 1, Cl₃SiPh-3-glycidoxypropyltrimethoxysilane copolymer 85, and TiO₂ 43 parts showed good storage stability at 35.degree. for 1 mo and throwing power at 40 kV and 200 g/min and gave a 60-.mu.m film with 98% gloss maintenance after 2000 h under sunshine weatherometer.

RN 2530-83-8 HCPLUS

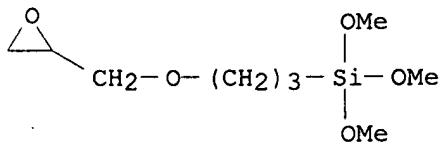
CN Silane, trimethoxy[3-(oxiranylmethoxy)propyl]- (9CI) (CA INDEX NAME)



CM 1

CRN 2530-83-8

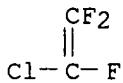
CMF C9 H20 O5 Si



CM 9

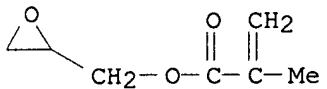
3/21/02 08/634,255

CRN 79-38-9
CMF C2 C1 F3



CM 1

CRN 106-91-2
CMF C7 H10 O3



3/21/02 08/634,255

L13 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2002 ACS
AN 1994:484672 HCAPLUS
DN 121:84672
TI Surface properties of an anhydride-epoxy resin cured against different mold surfaces
AU Chihani, Thami; Bergmark, P.; Flodin, Per; Hjertberg, Thomas
CS Dep. Polym. Technol., Chalmers Univ. Technol., Gothenburg, 41296, Swed.
SO J. Adhes. Sci. Technol. (1993), 7(6), 569-82
CODEN: JATEE8; ISSN: 0169-4243
DT Journal
LA English
CC 37-5 (Plastics Manufacture and Processing)
AB An epoxy resin consisting of diglycidyl ether of bisphenol A and methyltetra-hydrophthalic anhydride (MTHPA) was cured against molds with different surface characteristics: poly(ethylene terephthalate) (PET), perfluorinated ethylene propylene copolymer (FEP), and air. The epoxy surfaces were analyzed using contact angle measurements and XPS. The results presented are interpreted in terms of differences in surface energy between the surface of the mold and the epoxy resin. With PET as the mold surface, the surface content of ester groups resulting from the anhydride increased as compared to the av. bulk content. With the non-polar FEP mold, the amt. of ester groups decreased instead. Shear tests on overlap joints obtained by adhesive bonding with polyurethane and epoxy adhesives showed, however, a high adhesive joint strength, both for epoxy surfaces obtained with FEP as mold, and for ground surfaces with a bulk compn. The surfaces generated in PET molds yielded only poor adhesive joint strength. These differences in joint strength could be related to the concn. of reactive functional groups (--OH, --COOH) in the outermost surface of the cured epoxy resin.
RN 27029-05-6 HCAPLUS
CN 1-Propene, polymer with tetrafluoroethene (9CI) (CA INDEX NAME)

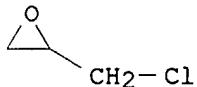
CM 1

CRN 116-14-3
CMF C2 F4



CM 2

CRN 106-89-8
CMF C3 H5 Cl O



3/21/02 08/634,255

L87 ANSWER 1 OF 1 HCPLUS COPYRIGHT 2002 ACS

AN 1999:421116 HCPLUS

DN 131:45562

TI Fluorine-containing **epoxy resin** composition and its
application for **ink-jet printing head**

IN Imamura, Isao; Shimomura, Akihiko

PA Canon K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L063-00

ICS B41J002-01

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11181246	A2	19990706	JP 1997-358264	19971225
AB	Title compn. with good chem.-, water-, and weather-resistance comprises (a) a multi-functional epoxy resin having .gtoreq.2 epoxy groups per mol., (b) a multi-functional alc. contg. perfluoro group and .gtoreq.2 hydroxyl groups per mol., (c) a silane coupling agent, and (d) a polymn. initiator or curing agents. Thus, an ink-jet printing head fabricated from the epoxy resin compn. comprising Epikote 828 75, 1,4-bis(2-hydroxyhexafluoroisopropyl)benzene 25, silane coupling agent NUC A-187 5 parts, and curing agent Fujicure FXK 830 (50 wt% vs. total main agents) demonstrated high printing quality and durability (no data) using an ink comprising water 65,				

Not old enough

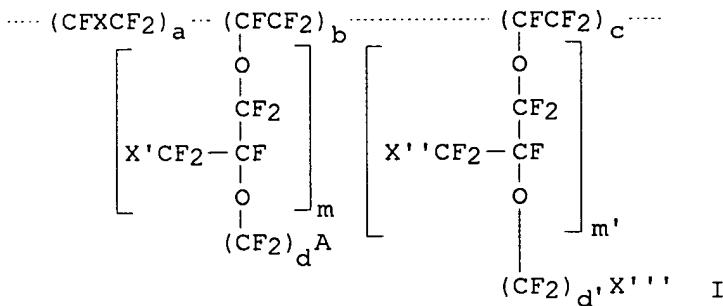
3/21/02 08/634,255

L13 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2002 ACS
AN 1990:516792 HCAPLUS
DN 113:116792
TI Manufacture of composites by reactive bonding of functionalized fluoropolymers
IN Golding, Wanda W.; Ezzell, Bobby R.
PA Dow Chemical Co., USA
SO U.S., 11 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM B32B015-08
ICS B32B027-06
NCL 428421000
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 55, 56, 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4916020	A	19900410	US 1988-160796	19880226
	JP 02503409	T2	19901018	JP 1989-502704	19890221
	CA 1294865	A1	19920128	CA 1989-592010	19890224
PRAI	US 1988-160796		19880226		
	WO 1989-US672		19890221		

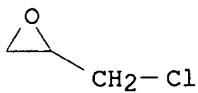
GI



AB Composites are formed by reactive bonding of pendant group-contg. functional fluoropolymer (I; a and b = integer >0; c = 0 or integer >0; X, X', X'', and X''' = halogen, CF₃, or C₂-10-fluoroalkyl; n and m' = 0-4; d and d' = 1-6; and A = a sulfonic group, a carboxylic group or a deriv. thereof) which terminate with a second reacting group and a first substrate having a first reacting group, provided a portion of the first reacting group and a portion of the second reacting group have reacted with each other to form covalent or ionic bonds. The functional fluoropolymers are useful for coating other materials and serving as a transition or adhesive layer. Thus, 1040 EW sulfonyl fluoride-functional I film was converted to sulfonamide deriv. reacted with triethylenetetramine, coated on both sides with an epoxy resin adhesive comprising TER 331 resin, CaCO₃ filler, and Versamid 140 curing agent, bonded to degreased stainless steel strips, cured at 100.degree., and post-cured under pressure to give a composite showing lap shear strength 1440 lbs/in² and failure mode adhesive, compared with 98 and adhesive for a composite manufd. from FEP Teflon instead of the functional I.

CRN 106-89-8
CMF C3 H5 Cl O

3/21/02 08/634,255



IT 9002-84-0P, Polytetrafluoroethylene

RL: PREP (Preparation)

(composites with carbon steel and sulfonamide functionalized fluoropolymer, manuf. of)

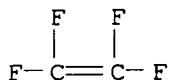
RN 9002-84-0 HCPLUS

CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3

CMF C2 F4



IT 12624-35-0, Versamid 140

RL: USES (Uses)

(crosslinkers, for epoxy resin adhesives, for sulfonamide-functionalized fluoropolymers)

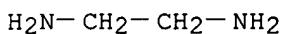
RN 12624-35-0 HCPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, dimer, polymer with 1,2-ethanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 107-15-3

CMF C2 H8 N2



CM 2

CRN 6144-28-1

CMF (C₁₈ H₃₂ O₂)₂

CCI PMS

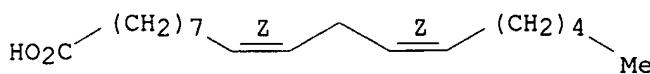
CM 3

CRN 60-33-3

CMF C₁₈ H₃₂ O₂

CDES 2:Z,Z

Double bond geometry as shown.



3/21/02 08/634,255

L13 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2002 ACS
AN 1987:619270 HCAPLUS
DN 107:219270
TI Thermosetting **fluorocarbon** polymer primers
IN Higginbotham, Clark A.; Wichmann, James W.
PA DeSoto, Inc., USA
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM C08L027-14
 ICS C08L027-16; C08L033-14; C08L063-02
NCL 523435000
CC 42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4684677	A	19870804	US 1986-828980	19860213
	EP 232823	A2	19870819	EP 1987-101342	19870131
	EP 232823	A3	19890517		
	R: BE, DE, FR, GB, IT, NL, SE				
	CA 1270080	A1	19900605	CA 1987-528922	19870204
	JP 62192470	A2	19870824	JP 1987-30609	19870212
PRAI	US 1986-828980		19860213		

AB Air-drying, solvent-borne, thermosetting primers with good adhesion to **fluorocarbon** polymer topcoatings are prep'd. from solns. contg. 20-45% fluoropolymer, a sol., hydroxy-**functional** copolymer of monoethylenically unsatd. monomers contg. 5-30% hydroxy-**functional** monoethylenic monomer at 0.7-1.5 parts hydroxy-**functional** copolymer/part fluoropolymer, epoxy resin providing 0.1-0.6 parts polyepoxide/part hydroxy-**functional** copolymer, a **curing agent** reactive with the hydroxy functionality of the acrylic copolymer and epoxy resin, and inorg. pigment at resin solids-pigment ratio 1:(0.2-0.8). Thus, a compn. contg. TiO₂ 154, SrCrO₄ 17, 55%-solids 20:15:65 Et acrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer-dipropylene glycol monoacetate (I) soln. 291, I 142, BuOAc 180, bisphenol A diglycidyl ether homopolymer (mol. wt. 390) 64, etherified melamine-HCHO condensate (90% soln.) 62, and poly(vinylidene fluoride) (II) 150 lbs was thinned (4-5):1 with MEK, sprayed on an Al panel, allowed to air-dry for 5-10 min, oversprayed with a II topcoat, and baked to give a coating resistant to >toreq.100 MEK double rubs.

IT 111404-70-7

RL: USES (Uses)

(fluoropolymer primers contg., with good adhesion to fluoropolymer topcoatings)

RN 111404-70-7 HCAPLUS

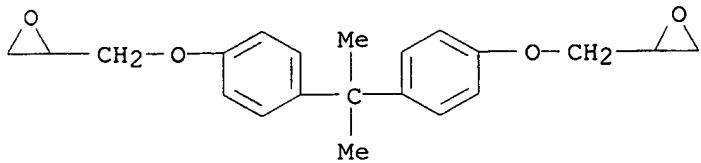
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethyl 2-propenoate, formaldehyde, 2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane], methyl 2-methyl-2-propenoate and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 1675-54-3

CMF C21 H24 O4

3/21/02 08/634, 255



IT 24937-79-9, Poly(vinylidene fluoride)

RL: USES (Uses)

(primers contg. thermosetting polymers and, with good adhesion to
fluoropolymer topcoatings)

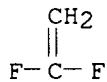
RN 24937-79-9 HCPLUS

CN Ethene, 1,1-difluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 75-38-7

CMF C2 H2 F2



3/21/02 08/634,255

L21 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS

AN 1993:148691 HCAPLUS

DN 118:148691

TI Preparation of curable polyurethanes

IN Matsumoto, Yasuhiro; Shirota, Kanji

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G018-62

ICS C09D175-04

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04178417	A2	19920625	JP 1990-306679	19901113 <--
	JP 3055167	B2	20000626		

AB The title polymers, useful for manuf. of films, adhesives, leather substitutes and coatings, are prep'd. by the reaction of polyisocyanates with OH-terminated macromers, which are prep'd. by radical polymn. in the presence of mercaptan chain-transfer agents bearing .gtoreq.2 OH groups. Thus, heating ethylene glycol (I)-neopentyl glycol-isophthalic acid-sebacic acid copolymer diol (mol. wt. 2000) 100, oligomeric glycidyl methacrylate-Me methacrylate copolymer diol (mol. wt. 6000, prep'd. in the presence of thioglycerol) 100, MDI 49, Sn octanoate 0.05, and PhMe 110 parts at 70.degree. for 2 h, adding 8 parts I and 489 parts MEK and heating gave a resin soln., 100 g of which and 12 g epoxy curing agent (Luckamide EA 240) were applied on a steel sheet to give films with adhesion 7.6 kg/in.

RL: PREP (Preparation)

(prepn. of, for films, with good adhesion, solvent-resistant)

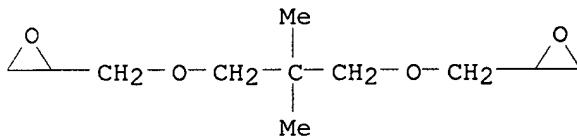
RN 146266-02-6 HCAPLUS

CN Hexanedioic acid, polymer with butyl 2-methyl-2-propenoate, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2,2'-(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)bis[oxirane], 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 17557-23-2

CMF C11 H20 O4



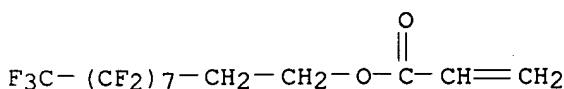
RN 146266-06-0 HCAPLUS

CN Hexanedioic acid, polymer with 1,4-butanediol, 1,2ethanediol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluorodecyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene] and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

3/21/02 08/634,255

CRN 27905-45-9
CMF C13 H7 F17 O2



CM 2

CRN 124-04-9
CMF C6 H10 O4

RN 146571-30-4 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, polymer with decanedioic acid,
2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, Luckamide EA 240,
1,1'-methylenebis[4-isocyanatobenzene], methyl 2-methyl-2-propenoate and
oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

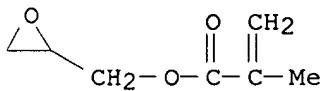
CM 1

CRN 146104-33-8
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

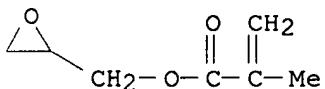
CM 6

CRN 106-91-2
CMF C7 H10 O3



CM 7

CRN 106-91-2
CMF C7 H10 O3



L13 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2002 ACS
 AN 1996:290206 HCAPLUS
 DN 124:319790
 TI Epoxidized low viscosity rubber toughening modifiers for epoxy resin
 coating compositions
 IN St. Clair, David John
 PA Shell Internationale Research Maatschappij B.V., Neth.
 SO PCT Int. Appl., 26 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C08G059-34
 ICS C08G059-22; C08L063-08; C08L063-00
 CC 42-9 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9602586	A1	19960201	WO 1995-EP2818	19950711
	W: AU, BR, CA, CN, FI, JP, KR, MX, NO RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5499409	A	19960319	US 1994-277379	19940718
	CA 2195316	AA	19960201	CA 1995-2195316	19950711
	AU 9531138	A1	19960216	AU 1995-31138	19950711
	AU 699157	B2	19981126		
	EP 771334	A1	19970507	EP 1995-926931	19950711
	EP 771334	B1	20001018		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
	JP 10502696	T2	19980310	JP 1995-504710	19950711
	BR 9508291	A	19980519	BR 1995-8291	19950711
	AT 197057	E	20001115	AT 1995-926931	19950711
	ES 2151604	T3	20010101	ES 1995-926931	19950711
	FI 9700182	A	19970116	FI 1997-182	19970116
	NO 9700203	A	19970116	NO 1997-203	19970116
PRAI	US 1994-277379	A	19940718		
	WO 1995-EP2818	W	19950711		

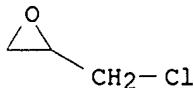
AB The compns comprise (A) curable arom. and curable cycloaliph. epoxy resins, (B) epoxidized low viscosity polydiene polymers wherein the polymers contain 1.0-7.0 m-equiv of epoxy/ g of polymers, (C) curing agents and (D) hydroxy functional materials which are sol. in mixts. A and B. Thus, a coating, having pencil hardness H and good adhesion, was prep'd. from a mixt. of CyraCure UVR 6110 60, Epon 828 10, epoxidized butadiene-isoprene block copolymer rubber 20, 2-ethyl-1,3-hexanediol 10, CyraCure UVI 6974 (photoinitiator) 0.5 and Fluorad FC 430 (fluorocarbon surfactant) 0.1 part.

RN 25068-38-6 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 106-89-8
 CMF C3 H5 Cl O



3/21/02 08/634,255

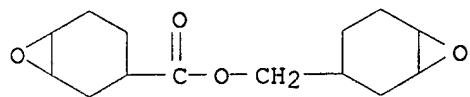
RN 25085-98-7 HCPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2386-87-0

CMF C14 H20 O4



3/21/02 08/634,255

L13 ANSWER 9 OF 14 HCPLUS COPYRIGHT 2002 ACS
AN 1997:44527 HCPLUS
DN 126:75330
TI Bisalkenyl-substituted nadimides, their manufacture, and their thermosetting compositions
IN Futaesaku, Norio; Washimori, Akiko; Kudo, Masaaki; Fukuda, Hideo;
Maruyama, Isao
PA Maruzen Oil Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07D209-76
ICS C08F022-40; C08F026-06; C08K005-3417; C08L101-00
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 27, 37, 42
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08277265	A2	19961022	JP 1995-104880	19950404

OS MARPAT 126:75330
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Bisalkenyl-substituted nadimide I is synthesized by the reaction of nadic anhydride deriv. II with diamine III ($R_1, R_2 = H, Me; R_3 = H, halogen, Me; R_4, R_5 = C1-4 alkylene; p, r = 0-3; q = 0, 1$). Thermosetting compns. with good dielec. property, water absorbance, and transparency are made from nadimide I and other components selected from maleimide compds., alkenyl-substituted nadimide compds., epoxy resins, phenolic resins, vinylbenzyl compds., vinyl compds., cyclic olefins, **functional** group-contg. conjugated dienes, and unsatd. polyester resins. The thermosetting resins may also contain silicone resins, modified silicone resins, polysulfone resins, polyphenylene sulfides, and fluoropolymers.

CM 3

CRN 106-89-8
CMF C3 H5 Cl O

